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Climax Structure in Late Romantic Opera

Ji Yeon Lee
The Graduate Center, City University of New York

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CLIMAX STRUCTURE IN LATE ROMANTIC OPERA

by

JI YEON LEE

A dissertation submitted to the Graduate Faculty in Music in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2018
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Ji Yeon Lee

This manuscript has been read and accepted for the Graduate Faculty in Music in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

_________________________  ____________________________
Date                      L. Poundie Burstein
                          Chair of Examining Committee

_________________________  ____________________________
Date                      Norman Carey
                          Executive Officer

Supervisory Committee:

William Rothstein, advisor

Chadwick Jenkins, first reader

L. Poundie Burstein

Kofi Agawu

THE CITY UNIVERSITY OF NEW YORK
ABSTRACT

CLIMAX STRUCTURE IN LATE ROMANTIC OPERA

By

Ji Yeon Lee

Advisor: William Rothstein

When people listen to music, they tend to perceive dynamic rise and fall, often without preliminary knowledge of musical structures and mechanism. This perception of musical dynamism has long been assumed too intuitive and natural to merit serious academic attention. The present dissertation aims to address this neglect by approaching musical dynamism as a logical, systematic process. A formal analytical model, the climax archetype, is proposed for understanding the workings of musical dynamism; to this end, the dissertation focuses on late Romantic operas, especially the works of Wagner and verismo composers, which are characterized by intense musical, dramatic, and emotional dynamism.

The first three chapters in this dissertation serve as a springboard for the presentation of the climax archetype in the following two core chapters. Most chapters are divided into two subchapters. Chapter 1 reviews terms and concepts on climax and highpoint. Subchapter 1.1 introduces Ernst Kurth’s climax theory, presented in Bruckner (1925), as a historical precedent for climax study in the modern era; emphasis is put on his concept of dynamic building, and its parameters and operational principles. Subchapter 1.2 surveys studies (mostly those by post-Kurthian scholars) in analysis related to climax building. Chapter 2 scrutinizes the various parameters used in climax building and integrated in the climax archetype. Subchapter 2.1
investigates solo operations of individual parameters such as harmony, pace acceleration, dynamics, melodic contour and pitch, and instrumentation; subchapter 2.2 addresses parametric interaction. Chapter 3 discusses narrative and dynamic arcs in literary theory and music, which provide prototypes for the climax archetype. Subchapter 3.1 examines bipartite, tripartite, and quintipartite narrative forms in literary theory; subchapter 3.2 moves on to dynamic trajectories in music and investigates dynamism in phrase or formal units, demonstrated primarily through analysis of Romantic opera.

Chapter 4 articulates the climax archetype—comprised of initiation, intensification, optional delay, highpoint, and abatement—as a model to explain dynamic processes in late Romantic opera; normative examples are drawn from music by Beethoven, Bellini, Wagner, and Giordano. Chapter 5 magnifies the applicability of the climax archetype by embracing modification and variants seen in non-normative climax structures. Subchapter 5.1 delves into internal climax deformations, including the fusion or absence of climax stages, high region, and highpoint frustration; subchapter 5.2 proceeds to compound structures such as the climax succession and climax nesting.

The climax archetype and its modifications broaden the analytical scope of musical dynamism in Romantic opera from the well-researched groundswell in the bel canto repertoire to diverse structures beyond the conventional form (la solita forma). Furthermore, the dissertation explains how musical climaxes interact with certain dramatic circumstances or psychological dynamics, emphasizing the prevailing aesthetic of unified musical-dramatic development. Finally, this study suggests compositional principles shared between Wagner and verismo works; out of this examination, a musical-structural principle is proposed for replacing the prevailing but inadequate definition of “verismo” as realism in opera.
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INTRODUCTION

People listening to music, regardless of their musical knowledge or formal training, intuitively perceive the waxing and waning of tension. If a listener accustomed to Western music hears increasing sonic intensity, accelerating tempo, soaring melodic lines, and accumulating instrumentation, they tend to sense growing, driving momentum; further, as the intensity approaches a breaking point, the listener expects the imminent arrival of the musical apex. As such, fluctuation in tension can be felt everywhere within a musical piece—from the harmonic progression of a few chords, to sectional divisions in a form, to entire pieces. This perception of dynamism is found in countless musical works, across genres, styles, and time periods.

Despite the familiarity of the experience of musical dynamism, little analytical attention has been paid to how dynamism is architecturally executed and what techniques and devices are used to create it. Because the listener’s perception of the rise and fall of tension is so intuitive and spontaneous, systematic analytical approaches to climax building tend to be elided; “climax” and similar terms appear frequently in analytical and critical discussions, but how and why those terms are used is rarely questioned. Kofi Agawu zeroes in on this habitual neglect, targeting musical discourse in general:

Indeed, the phenomenon is so basic, and yet too little studied by music theorists, that one is inclined to think either that it resists explanation or that it raises no particularly challenging theoretical issues. Perhaps highpoints are superficial, effects of the foreground to be set aside as soon as the search for deeper-level processes begins.1

Despite this general neglect, issues of climax have been often noticed in the works of certain composers and genres. For Example, in earlier Italian Romantic opera, the most climactic

sound—orchestral tutti, agitated atmosphere, driving force, strong dynamics, high notes, concluding cadence, and so on—is associated with *cabaletta* or *stretta* in the conventional form (*la solita forma*). However, as post-*bel canto* Romantic opera undergoes many formal challenges, climax is not necessarily restricted to a particular position. For example, many music scholars and critics consider the prelude and closing “Isolde’s Transfiguration” in *Tristan und Isolde* exemplars of dynamic surge and propulsion interacting with exceptional psychological intensity.\(^3\)\(^4\)

Likewise, verismo opera is characterized by “violent vocal outbursts, heavy orchestration, big unison climaxes, and agitated duets”\(^5\) and “a tendency to conclude acts with massive orchestral groundswells.”\(^6\) The invocation here of the term “groundswell” is key, as it has specific purposes in opera analysis: featuring a growth in dynamic intensity and occurring in the conclusion of an aria or ensemble finale in the conventional form, the term was coined by

\(^2\) For discussion of conventional form, see p. 152.

\(^3\) Wagner’s *Tristan und Isolde* is a paradigmatic example of musical dynamism, with much scholarly attention to the dynamic structures. Hugo Leichtentritt analyzes the opera’s prelude with an emphasis on the process of climax building in *Musical Form* (Harvard University Press, 1951), 355–58; Similarly, Meyer explains the form of “Isolde’s Transfiguration” using the concept of “statistical climax” in *Style and Music* (Chicago: University of Chicago Press, 1989), 311–25. For the term “statistical climax,” see pp. 49–52. Furthermore, since its premiere, climax building in this opera has also been associated with sensual meaning. Famously, the renowned American composer and music critic Virgil Thomson claimed to have felt seven orgasmic musical climaxes during the Act 2 love duet. Although this number is unsubstantiated—Thomson did not detail the occurrences themselves—there has long been consensus that the duet carries a sensation of sexual ecstasy.

\(^4\) The term *cabaletta*, drawn from the Italian conventional form, is certainly inappropriate for Wagner’s operas for aesthetic and anachronistic reasons. Nevertheless, the term is still used for Wagner analysis: Karol Berger analyzes the Act 2 love duet in the context of the conventional form, in which the final two sections are labeled *cabaletta 1* (P183/4–187/1; all vocal scores of Wagner’s music dramas used in this dissertation are Schirmer editions. Score references preceded by “P” follow page/system/measure number; those with “R” follow rehearsal/measure number.) and *cabaletta 2* (P187/2–195/3/4); the second *cabaletta* returns in the middle of “Isolde’s Transfiguration” (P294/4, beginning of the B-major section). See Berger, *Beyond Reason: Wagner contra Nietzsche* (Berkeley: University of California Press, 2016), 434.


Julian Budden, and refined by Joseph Kerman and Thomas Grey, through analyses of works by bel canto composers and Verdi.\footnote{For detailed discussion of groundswell, see pp. 45–48.}

In this regard, groundswell offers a useful prototype for discussing structural dynamism, although it often has limited applicability outside of its musical analytical context. The core idea of groundswell approaches the mechanisms of dynamism as a distinctly audible phenomenon, a surge of intensity directly impacting listeners. Due primarily to its organizational and locational context within the conventional form, and traditional attachment to the bel canto genre, groundswell falls short of accounting for the formally distinct dynamic structures of post-bel canto Romantic operas; nonetheless, it can shed light on dynamism outside the genre. David Gable, for instance, holds that “the extent of the influence of the groundswell can be gauged from the influence of Bellini’s on the “Isolde’s Transfiguration” from Wagner’s Tristan und Isolde.”\footnote{David Gable, “Holding Pattern and Groundswell: Verdi’s Mimesis of the Lyric,” Verdi Forum 28–29 (2001–2002), 21–31. Regarding the Wagner/Bellini connection, Wagner’s early writings show admiration for Bellini, in contrast to his well-known contempt for Italian bel canto opera. As a conductor at the Riga Theater, Wagner wrote a preparatory article to a performance of Bellini’s Norma published in The Riga Zuschauer (No. 4621, December 7–19, Tuesday, 1837). In the article, he praises Bellini for “his simple, noble, and beautiful cantilena,” and concludes that Norma is Bellini’s most successful work: “here, where the poem rises to the tragic height of the ancient Greeks, this kind of form, which Bellini has certainly ennobled, serves only to increase the solemn and imposing character of the whole; all the phases of passion, which are rendered in so peculiarly clear a light by his art of song are thereby made to rest upon a majestic soil and ground, above which they do not vaguely flutter about, but resolve themselves into a grand and manifest picture, which involuntarily calls to mind the creations of Gluck and Spontini.” See translation and commentary in “Wagner on Bellini,” The Musical Times and Singing Class Circular 27/516 (1886), 66–68.} He argues that Tristan’s final 36 measures form “an apotheosis of the dynamics of the groundswell by a composer at the height of his powers.”\footnote{For detailed discussion of Gable’s analysis in “Holding Pattern and Groundswell,” 144–47.} Gable’s analysis of the conclusion of “Isolde’s Transfiguration” implies the further applicability of dynamic swell to repertoire beyond Italian opera based on the solita forma, such as Wagner and verismo composers.
The connection between Wagner and verismo composers is well-established in the historical record under the rubric of “Wagnerism,” the reception history of Wagner’s compositions.\textsuperscript{10} His aesthetic credo prioritized dramatic immediacy and psychologically faithful delivery; to achieve this, he calls for innovative use of chromatic harmony, uninterrupted musical and dramatic flow, intensified instrumentation, leitmotivic technique, declamatory vocal texture, and other compositional techniques. The impact of this musical direction was profound and far-reaching, causing a vogue of Wagnerism well beyond the Germanic music world, and the Italian verists determinedly sought to emulate Wagner’s operatic principles. Beyond the historical evidence of Wagnerism however, their compositions themselves contain a story of shared aesthetic aims, musical structures, and techniques. Most critically, the bodies of work suggest a common reliance on and interest in the affective impact of tension as it rises and falls over musical time.

This shared interest suggests a heretofore unexamined music theoretical aspect to the artistic connection between Wagner and the verists. Therefore, I examine the musical structures involving climax and highpoint with an eye towards offering a music-architectural tool for understanding these repertoires. To elucidate the mechanism of dynamic rise and fall, the present study proposes a new model, the \textit{climax archetype}, to bridge the discrepancy between the strong

dynamism dominating listeners’ experiences of the oeuvres of Wagner and the verists, and its theoretical under-exploration. The application of this new model follows the formal changes that post–bel canto, late Romantic operas underwent. In addition to groundswell, there are several other related terms and concepts, which provide theoretical precedent for understanding climax structures and devising the climax archetype, as examined in the following chapter; indeed, the scope and conceit of climax archetype is well beyond a variant of groundswell. More significantly, climax archetype is a theoretical model for analysis that can trace and illuminate dynamic motion, rather than just indicating a dynamic phenomenon itself; climax archetype comprises multiple structural components, and their operations owe to specific parameters. In this regard, climax archetype goes beyond mere description, and aims to explain such phenomenon in a logical process using analytical language.

The dissertation consists of five chapters primarily concerned with the theorization of climax and its application to analysis of practical musical examples.11 The methodological compass of my study centers on score analysis of musical passages containing the climax

11 Climax and highpoint grounded in performance practice are not a main issue in this dissertation. Of course, narrowing down the research scope is not intended to undervalue the study of musical dynamism in the areas of performance and recording. Indeed, much climax building depends on the active involvement of a performer. An extreme case is John Corigliano’s Fantasia on An Ostinato (originally written for piano in 1985; arranged for orchestra in 1986), whose structure is based on the process of climax building or cumulative form. Corigliano wrote in the preface to the orchestra score that “[in the piano version] I left the decisions concerning repetition of repeated patterns in the central section to the competitors, so that judges and audience might hear their varied viewpoints as to the building of the climax of a musical structure.” In this note, Corigliano clearly indicates that the climax process is determined more by performers’ interpretations than through the composer’s notated information.

Certain scholars also discuss the importance of performance practice in climax building. For example, David Huron notes that, when approaching climactic moments, performers frequently accelerate, play more loudly, use more intense timbres, add vibrato, accentuate dissonant elements, introduce large delays prior to the most expected moments, and sometimes even fill out chords with additional notes. See Huron, Sweet Anticipation (Cambridge: MIT Press, 2006), 326. These techniques have an undeniable relevance to the execution of climax; certain musical parameters may not be notated in the score but are added through a performer’s artistic interpretation, and are thus communicated to listeners. Climaxes that may not be readily apparent in score or analysis can nonetheless be sensed, sometimes intuitively, should the performer choose to manifest that interpretation. Similarly, a performer may emphasize certain notated parameters in climax realization. These performance-related topics are worth investigating in future research.
archetype, and interpretation of the interactions between those climax structures and the stage drama. Chapter 1 is a two-part literature review incorporating an examination of terminology relevant to climax and highpoint. Chapter 1.1 surveys Ernst Kurth’s climax theory, a seminal exploration of climax studies in the early twentieth century; his approach to musical dynamism, under the rubric of energetics, provides standards and parameters for dynamic arcs that later scholars developed further. Chapter 1.2 addresses synonyms for climax and highpoint, including the different meanings they have for diverse scholars. Chapter 2 explores the individual musical parameters used for climax building and highpoint: harmony, pace acceleration, dynamics, melodic contour and pitch, and instrumentation. Parametric interaction will be considered as well, since musical practice most often involves multiple parameters occurring simultaneously. Chapter 3 examines various forms and patterns for illustrating tension and intensity in literary theory and music, detailing their commonalities and parallels in narrative-temporal flow. This is followed by a review of the prototypes of operatic climaxes and highpoints.

Chapter 4 presents the climax archetype—comprising initiation, intensification, highpoint, and abatement, with an optional delay at the end of intensification—as a theoretical model for systematizing musical tension and release. The following analysis of selected operatic passages demonstrates examples of normative climax structures by using climax archetype. Chapter 5 expands the applicability of the climax archetype to non-normative climax structures, the internal deformations and compound variants; this allows for a more adaptable and agile explanation of dynamic forms.  

12Adopting and following from James Hepokoski and Warren Darcy’s term relating to sonata theory, “deformation” —“the stretching of a normative procedure to its maximally expected limits or even beyond them or the overriding of that norm altogether in order to produce a calculated expressive effect”—does not carry any negative judgmental connotations in this dissertation. See Hepokoski and Darcy, *Elements of Sonata Theory* (New York: Oxford
By relating the climax phenomenon to this codified and systematized form through analyses of dynamic building in the repertoire, the climax archetype elevates theoretical assessments of musical dynamism from the superficial, uncoordinated, or merely intuitive, revealing climax structures as skillfully wrought organic processes.
CHAPTER 1

Terms and Concepts for Climax and Highpoint

1.1. Historical Precedent: Ernst Kurth’s Climax Theory

Ernst Kurth is best known for his work on theorizing “Romantic harmony” in late-nineteenth century chromatic music. Less well-known is his pioneering role in the theorization of climax and highpoint, part of his broader study of musical energetics. Kurth lays out his theory of climax and highpoint in the 13 subchapters of Vol. 1, Chapter 3, “The Formative Undulatory Play” (Das gestaltende Wellenspiel, pp. 363–462):14

1. Symmetries and open wave series in the large dimension (Symmetrien und offene Wellenreihen im Großen)
2. Initiations and interruptions (Ansätze und Unterbrechungen)
3. Apparent contradictions in the intensifications and cooperation of their resources (Scheinbare Widersprüche in den Steigerungen und Zusammenwirken ihrer Teilmittel)
4. Bruckner’s typical wind-section consolidations and additional motivic formations of the orchestral concentration (Bruckners typische Bläserverdichtungen und weitere Motivbildungen der Zusammenballung)
5. Repetition and intensification (Wiederholung und Steigerung)

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14 The translation of the subtitles is adopted from Rothfarb’s Selected Writings. See Rothfarb, Ernst Kurth: Selected Writings, 217. I added prefacing numbers to the existing order.
6. An examination of the paths of intensification in a larger context (Beobachtung der Steigerungswiegen an einem längeren Zusammenhang)
7. Energetic forms of the apex and the surmounting thereof (Kraftsformen des Höhepunkts und seine Übersteigerungen)
8. Apparent contradictions in the apexes (Scheinbare Widersprüche in den Höhepunkten)
9. Discharged apexes (Gelöste Höhepunkte)
10. Forms and long-range effects in the ebbing of the apex (Formen und Fernwirkungen im Höhepunktsausklang)
11. The episodes of void and turmoil (Die Episoden der Leere und Wirrnis)
12. On the technique of deintensification (Zur Technik der Rückentwicklung)
13. Typical forms of large-scale tension. Tendency toward tripartition (Typische Spannungsformen im Großen. Ausstreben in die Dreiheit)

In his theory, Kurth prioritizes what we hear and why we hear it that way, as reflected by the readily perceived parameters he bases his explanation of climax and highpoint on: pitch, melodic contour, dynamics, instrumentation, texture, and register.\footnote{Since Kurth considers all musical elements written in the score in climax building, reference to a reliable critical edition is of the utmost importance. However, Rothfarb points out that “Kurth relied on texts of Bruckner’s works that were so heavily edited by the composers’ proponents, that, in some cases, the music may no longer embody Bruckner’s intentions at all. […] Kurth worked from orchestral and four-hand piano editions prepared by Franz Schalk and Ferdinand Löwe, and so could gain only a limited and, in some cases, distorted picture of Bruckner’s work.” This problem worsens when Kurth does not provide score examples for his analyses. The resulting gap between his analytical discussion and a point–by–point tracing of the events in the score is considerable. See Rothfarb, \textit{Ernst Kurth as Theorist and Analyst}, 191.}

Although he occasionally considers motivic and harmonic elements as well, Kurth’s discourse has little room for the rigorous structural hierarchy that the Schenkerian approach assumes.\footnote{According to Hyer, Schenker objects to the “vagueness of [Kurth’s] analytical language,” arguing that, for instance, Kurth’s phrase “melody is motion” is meaningless. See Hyer’s discussion on Schenker’s harsh reaction to Kurth in “Musical Hysteria,” 86.}

His view of musical form is based on the idea that music cannot be reduced to an abstract and prescriptive template, but always progresses and changes over time. This essential kineticism has led some scholars to describe Kurth’s form as “forming.”\footnote{Rothfarb says that “a better word than form would be forming (\textit{Formung}), the active shaping of sound.” See \textit{Ernst Kurth as Theorist and Analyst}, 191.}

The thirteen subchapters of Chapter 3 in \textit{Bruckner} are arranged according to the process

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\footnote{Rothfarb says that “a better word than form would be forming (\textit{Formung}), the active shaping of sound.” See \textit{Ernst Kurth as Theorist and Analyst}, 191.}
of dynamic rise and fall. The first subchapter introduces the formal characteristics of Romantic music; the last subchapter reflects on tripartition as the universal principle in musical dynamism. Subchapters 2–12 broadly outline a four-stage dynamic trajectory, from onset of tension (subchapter 2), to intensification (subchapters 3–6), arrival of highpoint and its extended domain (subchapters 7–11), and deintensification (subchapter 12). Although this seems straightforward as such, the arrangement of the subchapters on intensification and highpoint does not always follow the chronology of dynamic events, as Kurth often goes into great depth on particular techniques and parameters especially relevant to understanding Bruckner’s works. More critically, he seems to deal more with philosophical reflection on the essence of music than actual musical realization; in tandem, his writing style is replete with metaphysical language and ideas influenced in large part by Schopenhauer and German idealism.

Yet the philosophical background underlying Kurth’s theory is not the focus of the climax archetype that I will propose. I instead take Kurth’s climax theory as a historical and methodological precedent, and as a prototypical approach to climax—embracing his listening-oriented attitude, framing of dynamic process, investigation of dynamic parameters, and view on musical form as fluid progression. Kurth’s discourse on climax thus provides not only a

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18 In this dissertation, the meaning of “dynamic” in its various grammatical forms is not limited to sonic intensity (i.e. softness and loudness of sound), but covers a broad spectrum of phenomena in energetics.

19 Kurth’s writing imports Schopenhauerian vocabulary extensively; certain keywords—“will” (Wille), “drive” (Drang), “strive” (streben), “urge” (drängen), “impulse” (Impuls)—in particular attest to his prioritization of energetics while rejecting musical form as a fixed mold and reducible template. Furthermore, according to Hyer, Kurth’s concept of motion (Bewegung) “has connotations of emotional affect and mental agitation […] The whole idea is overcast with idealism; Kurth would have us believe that the actual substance of music lies in the inner movement of the will and not in its outer expression as phenomenal sound.” See Hyer, “Musical Hysteria,” 85.

20 The greatest challenge in understanding—even deciphering, sometimes—Kurth’s musical examples and consequently his arguments on climax and highpoint is that those examples almost always lack larger contexts; in most cases, the examples are extremely local and so tightly excised that it is fairly hard to figure out which structural levels they belong to. To fully and correctly comprehend a particular climax stage, it is necessary to know the trajectory of the whole dynamic arc; as Kurth omits these, there is an inherent limitation to any presentation of his
historical precedent for this research area, but also a technical model for subsequent studies from an analytical perspective. Therefore, in Chapter 1.1, I present the critical concepts of Kurth’s climax and highpoint as a more tangible theory of dynamic building which is created by specific techniques and devices. Rather than providing a meticulous decoding of Kurth’s methodological process, I cover the salient points to be gleaned from his analysis; all of the concepts presented in this subchapter therefore come directly from Kurth.

**Initiation (subchapter 2)**

Initiation is the first stage in the development of the dynamic arc. It may include thematic statements; when these statements are complete, they guide the dynamic development toward highpoint. Even when such statements are incomplete, they have an anticipatory function.

Interruptions of initial waves appear largely through the use of dynamic manipulation—either sudden dynamic withdrawal (Example 1.1.1, m. 3) or gradual dynamic decrease (Example 1.1.2, m. 4), typically occurring at points of strong (or sometimes moderate) dynamic levels (e.g., \(f\) and \(ff\)). The interrupting soft dynamics mark a lowpoint in the development of the dynamic trajectory.\(^{21}\)

\(^{21}\) When occurring elsewhere in the climax process, Kurth suggests that sudden \(p\) or \(pp\) may produce “highpoint” moving into a transfiguration (Verklärung), in which “a suddenly appearing melody or motive formation generally glows in full beauty. The contradiction in the external dynamics then appears to be cancelled out through the magic of the \(pp\) notes, which presents an increased intensity in itself” (Original: “wobei gewöhnlich auch eine plötzlich hervortretende Melodie- oder Motivbildung in voller Schönheit aufglühnt; der Widerspruch in der äußern Dynamik erscheint dann durch den Zauber der \(pp\)-Töne aufgehoben, der in sich eine gesteigerte Intensität darstellt”). See Ernst Kurth, *Bruckner*, vol. 1 (Berlin: Hesse, 1925. rep. Hildesheim: Georg Olms, 1971), 377. This interpretation will be discussed further in the analysis of the *Francesca da Rimini* duet in Chapter 5.
Example 1.1.1. Sudden dynamic withdrawal from \textit{ff} to \textit{subito pp} (in m. 3)

Example 1.1.2. Gradual dynamic withdrawal through \textit{diminuendo} in m. 4
Interruption via dynamic withdrawal opens the possibility of new waves within the stage while avoiding a complete pause and subsequent rupture which would compromise the perception of the stage as part of a larger structure.\textsuperscript{22} Thus, interruption via dynamic designations plays not only a preparatory role but also allows for continuous progression of initial waves.

\textbf{Intensification (subchapters 3–6)}

The intensification stage substantially increases dynamic tension. Intensification involves largely rhetorical reinforcement of sound via dynamics, rhythm, pitch, instrumentation, and texture. Techniques for creating intensification include cooperation of intensification parameters (discussed in subchapter 3); “typical wind-section consolidations” and the “motivic formations of orchestrational concentration” (subchapter 4); and repetition (subchapter 5). Kurth’s approach is less reliant on strict adhesion to statistical parameters than to broader audible effect, as revealed by his interest in the juxtaposition of soft and strong dynamics: although strong or growing dynamics are normally considered a paramount factor for intensification, Kurth argues that radical back–and–forth between dynamic levels musically and psychologically increases tension just as—or even more—effectively than ever-crescendoing sound.

Intensification parameters are grounded in melody, instrumentation, register, phrase, rhythm, theme/motive, etc. Kurth underlines the interaction and cooperation of these parameters

\textsuperscript{22} In “Isolde’s Transfiguration” from \textit{Tristan und Isolde}, the growth of dynamic energy through the consistently descending bass and \textit{crescendo} is suddenly checked by \textit{pp} at m. 54/3, when the bass arrives on the dominant; from this, a new dynamic wave surges toward the mighty culmination in m. 61. The sudden dynamic withdrawal to \textit{pp} and the start of a new dynamic wave from the lowpoint is interruption via dynamic sign; Leonard Meyer also counts this sudden \textit{pp} in the aria as one of the signs for the rise of the new wave. See Leonard Meyer, \textit{Style and Music} (Chicago: University of Chicago Press, 1989), 322. Richard Taruskin regards this abrupt dynamic withdrawal in the aria as “a classic Wagnerian feint in the form of a shocking \textit{piano subito}.” See Taruskin, \textit{Music in the Nineteenth Century} (New York: Oxford University Press, 2009), 552.
in building intensification:

[...] all of these means of intensification strive together through the hardly separable, continuous change. Even if we look at the simplest intensification-waves, this [co-operation] occurs, and few of the examples so far would suffice to separate all these technical means in detail: melodic ascent, sound enhancements of all kinds, intensification of instrumental and sound color; further placement of notes in close register of the individual instruments; phrase condensation, the widening of the waves according to their high and low register, rhythmic and melodic animations, increased thematic work and motivic consolidation, in which the motives are extended beyond the original intervals; meshing of developmental motives and force-figures: finally, increasing unrest, which is expressed in a more lively change of rhythms, motives, etc.; one also sees that many intensification processes of the symphonic style are subject to the principle of smooth transitions and are not to be exhausted by the strictly separated partial ideas. 23 24

It is critical to grasp the parametric co-function and their “polyphonic” occurrence, because parameters are not always aligned during the dynamic escalation: while one parameter is at rest, another parameter may be acting to increase tension. On the other hand, parametric alignment in Bruckner’s works is reserved for the powerful highpoint.

Of particular interest to Kurth is the potential of dynamic alternation between ff and pp to intensify tension by dramatizing the path toward highpoint. Example 1.1.3 is a passage in the intensification with soft dynamics, which takes place between loud sections.

23 Kurth, Bruckner, 388. Original: “[... ] all diese Steigerungsmittel in kaum lösbarem, stetem Wechsel durcheinander treiben. Schon wenn man einfachste Steigerungswellen betrachtet, tritt dies hervor, und wenige der bisherigen Beispiele würden genügen, um im einzelnen alle diese technischen Mittel herauszulösen, als da sind: melodischer Aufstieg an sich, Klangverstärkungen aller Art, instrumentale und Klangfarbensteigerung; ferner Tongebung in angestrengten Lagen der einzelnen Instrumente; Satzverdickung, Breitung der Wellen nach ihrem Höhen- und Tiefenumfang, rhythmische und melodische Belebung, gesteigerte thematische Arbeit und Motivverdichtung, bei den Motiven selbst ihre Ausstreckung über breitere als die ursprünglichen Intervalle; Eingreifen von Entwicklungsmotiven und Kraftfiguren; schließlich überhaupt zunehmende Unruhe, die sich in lebhafterem Wechsel von Rhythmen, Motivcharakteren usw. äußert; man sicht, auch die vielfachen Steigerungsvorgänge des symphonischen Stiles unterliegen dem Prinzip fließender Übergänge und sind nicht nach streng gesonderten Teilbegriffen zu erschöpfen.” All German translations in this subchapter are mine, unless otherwise noted.

24 Kurth’s “developmental motive” is the smallest structural unit; it is even smaller than motive and theme, as it may consist of just two or three notes.
Example 1.1.3. Soft passage in the middle of intensification

The first three measures are the declining phase of the preceding passage; the end of m. 7 (string motive) is the starting point of the next dynamically strong section. Mm. 4–7 play a mediatory role, carrying a dying-away gesture and dynamic decrease from $p$ to $pp$. Although this passage is the softest dynamic point, its interpolation brings more energy to the intensification by providing dynamic potential—“depth” (*die Tiefe*—literally, a lowpoint of energy, tension, and dynamics, as opposed to highpoint)—for the next rising phase. In this sense, the motivic initiation at the end of m. 7 is neither sudden nor unmediated, but arises from the depth; the effect is similar to that of a whole rest, due to weak dynamics and gestural inactivity, but becomes part of the larger intensification gesture. Therefore, the momentary dynamic withdrawal does not dampen energy within the context of the back–and–forth; the effect of using soft
dynamics in the rising phase is instead perceived by listeners as part of a whole, rather than heard as discrete moments of soft or loud sound—an example of the *gestalt* perception.

Instrumentation in relation to motivic expression is also prominent in Kurth’s concept of intensification in Bruckner’s works. Most conspicuously—at least in Bruckner—wind and brass instruments cause high excitement by strengthening dynamics and enriching tone color; conveying extramusical connotations (e.g., majesty, magnificence, heraldry, etc.); and reinforcing motivic expression during intensification. Example 1.1.4 is the end of an intensification phase right before the highpoint (only the brass group is shown).

Example 1.1.4. Instrumentation and motivic expression

The passage features ascending dyadic leaps (consisting of the tonic and dominant) stated
regularly in the trumpets; this motive is a heraldic symbol in preparation for the upcoming highpoint. Furthermore, the sharply dotted rhythm in the horns and trombones produces a shoving gesture.

Motivic development is common in the intensification stage. A shivering gesture with strong dynamics and vigorously moving melody appears towards the highpoint in a dynamic wave in Example 1.1.5.25

Example 1.1.5. Energizing motivic transformation towards the highpoint in a dynamic wave

In the next dynamic wave, the gesture returns as a momentary interruption of the dynamic development in the middle of a long intensification passage, and is followed by a new wave (Example 1.1.6).26 In this passage, the motive is characterized by extremely soft dynamics and bare texture; Kurth mentions that “everything is tension of mediatory moments” (*Alles ist Spannung des Zwischenmoments*).

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25 Kurth does not provide musical examples tracking the gradual motivic transformation.

26 The following wave is unseen.
Motive in a momentary interruption of the dynamic development

Repetition is an essential element in generating driving will, and therefore a signal technique for intensification. In Bruckner, this is frequently applied as sequence technique: “one understands sequence as the union of repetition and modulation, that is, an already sounded passage is moved to other pitches one or more times, usually seconds up or down in stepwise manner, but also in other intervalllic distances.”27 The continuous forward motion of the same pattern becomes a driving force for intensification, while “the moment of repetition is the carrier

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27 Kurth, Bruckner, 399. Original: “unter Sequenz versteht man die Vereinigung von Wiederholung und Rückung, d.h. die ein- oder mehrmalige Verschiebung eines bereits angetönten Bruchstückes auf andere Tonhöhen, meist in Sekunden reihenweise auf- oder abwärts, aber auch in andern Abständen.”
of an impulse.”²⁸

Example 1.1.7 shows a sequence in which multiple voices ascend simultaneously.

Example 1.1.7. Sequential rise in intensification

Here, pitch is the most salient parameter creating sequence. A sequenced melody ascends from G to D every measure (each beat in the top voice and the downbeat in the middle voice); the strings carry the chromatically ascending bass; the first violin provides a sequential motive ascending

²⁸ Kurth argues that many of Bruckner’s themes bear the condition of sequence in themselves.
every measure; the wind group repeats the first note of the sequential motive in each measure.
The resulting ascent within the homophonic texture underlines the unity and coherence perceived in the intensification process as a whole.

These local-level analyses focus largely on rhetorical elements such as dynamic changes, melodic contour, and pitches. However, intensification can play out in a longer formal unit by considering harmony and form. A relatively lengthy excerpt from the development section of Bruckner’s Symphony No. 3, first movement (Example 1.1.8), is divided into three sections demarcated by voids; these sections present a developmental and cumulative process of intensification.29

29 For the discussion of the void, see pp. 30–34.

30 The serious problem in subchapter 6 is the lack of any score examples, and thus an inability to reference what specifically he is discussing. Currently available editions are different from the score Kurth referred to; therefore his omission of score example compromises analytical clarity. I use a score extracted from the piano reduction of Peters edition, but it gives only a rough glimpse of Kurth’s intent.
Example 1.1.8. Bruckner’s Symphony No. 3, first movement, development (Peters)
Example 1.1.8. Bruckner’s Symphony No. 3, first movement, development (cont.)
Example 1.1.8. Bruckner's Symphony No. 3, first movement, development (cont.)
In the first section (16 measures, starting a half measure before $K$), strings play an undulating melody drawn from the first thematic group in the exposition; the section ends with the woodwind group and horn in a calm state followed by a void. The second section, $L$, is a rough transposition of $K$ but tenser, due to the melody appearing a whole tone higher and the bass rhythm being reduced by half; the section ending reprises the K formula. Finally, the third section, $M–N$, is a “union” (Einheit) of the preceding two sections, in which all the techniques to increase momentum are employed comprehensively to produce an explosive highpoint at the beginning of $O$.\textsuperscript{31}

Kurth explains the driving quality of the passage from a harmonic perspective as well.\textsuperscript{32} The first section ($K$) in F minor concludes with D7 (V7 in G minor). Accordingly, the second section ($L$) opens in G minor; it concludes with E7 (V7 in A minor). The third section ($M–N$) is largely in A; $M$ opens in minor and ends in major, and $N$ concludes in A7 as preparation for the highpoint in D minor. Thus, the assigned tonic pitch gradually rises over the sections, F–G–A. Kurth also suggests a harmonic relation among the sections according to the half cadences in the context of the primary tonality, D: implied G in the first section; implied A in the second; realization of A in the third; final arrival on D at the highpoint. This tonal scheme outlines the PD–D–T progression.

**Highpoint (subchapters 7–11)**

Kurth approaches “highpoint”—a literal translation of “Höhepunkt”—not as an acute, discrete moment, but as a stretch of high tension, a process from the discharge of the highest

\textsuperscript{31} Although Kurth does not mention it, his analysis can be read as Lorenzian bar form (AAB)—the first two sections are related via sequence and the last section presents the highest dynamism.

\textsuperscript{32} Kurth, *Bruckner*, 409.
tension through its immediate aftermath to the long-term impact. As such, “highpoint area” is probably a more accurate term, at least insofar as Kurth applies it to Bruckner’s works. This is significant for Kurth’s principal idea of dynamic form; the aftermath of the highpoint discharge and its continuing effect—such as when a constituent dynamic wave fades away but is followed by rise of a new dynamic wave within the highpoint area—often obscure the boundary between the end the highpoint and the beginning of the deintensification. Indeed, the final phase of highpoint is an ebbing gesture which is nonetheless not part of the deintensification stage. This very obfuscation may be an aspect of Kurth’s primary idea of form as a seamless continuum, in which climax stages evolve without relying on strict demarcation.

There are two techniques for establishing such elongated highpoint passages: surmounting and apparent dynamic contradictions. Surmounting involves common phenomena such as a series of multiple dynamic waves, each of which has a highpoint surmounted by that of the next wave, thereby creating a succession of multiple highpoints. Even as listeners perceive highpoint arrival in the first wave, the post-highpoint gesture turns into the beginning of another dynamic rise, toward an even greater highpoint; this process repeats to create the stretched highpoint area. A theoretical assessment of a stretched highpoint area relies on what follows the highpoint—energy discharge or new waves:

A still relatively simple distinction is between highpoints, one represents a full discharge [of energy], and one out of which a dissolution is linked anew to the progression of waves; between these extremes, there are innumerable possibilities for transition and unification. In Bruckner’s form-types, however, the following comes first: to track a richly powerful picture of how further tightening-up of force can happen after such an intense breakout of the highpoint, or how further explosive discharges of energy follow, which still can surmount [the preceding wave] after the actual outbreak. Bruckner’s highpoints are often not a moment, but fantastic powerful events of the whole highpoint stretches, especially those which bring forth a total intensification to discharge after...
repeated partial waves.33

“Highpoint surmounting” involves a highpoint being overcome in successive dynamic waves by a new highpoint in terms of pitch, dynamics, and instrumentation. This surmounting gesture generates a continuous channeling of energy and allows for comparison of different energy levels between constituent dynamic waves within the highpoint domain. Example 1.1.9 shows highpoint surmounting in a passage with homophonic texture. The first four measures reach a highpoint in E-major triad, but is soon overcome by a new stronger highpoint with rhythmic and motivic diminution and thickened orchestration. Such consistent surmounting is akin to “re-tightening.”34


34 Kurth, *Bruckner*, 413. Kurth also comments that the broad triplet figure in m. 2 and 4 frequently appears in the highpoint in Bruckner.
Example 1.1.9. Highpoint surmounting in homophonic texture

Example 1.1.10 shows “mild highpoint,” highpoint surmounting in which a highpoint occurring in one instrumental voice is overridden by a more powerful highpoint in another instrumental voice. This is a more individuated form of surmounting (thus “mild” in relation to highpoint in homophonic texture), not reliant on momentum from an extended, unified surmounting action such as that seen in Example 1.1.9: a long-awaited highpoint arrives at m. 3 in ff with violin and trumpet; however, the cello continues to ascend to C5 at m. 5/2, and the violin melody achieves an even mightier highpoint on the downbeat of m. 7, through ascent to an A-flat doubling.
Example 1.1.10. Highpoint surmounting in polyphonic texture

Juxtaposition of contrasting dynamics as a highpoint technique likewise emphasizes the highpoint area as a dynamic process rather than a single moment. The mechanism of apparent dynamic contradictions is quite similar to that found in the intensification stage, as it increases tension and produces a spatial effect; befitting the new context, however, the contrasts are more extreme, as seen in Example 1.1.11. Here, \textit{ff} alternates with \textit{pp} without gradual dynamic decrease, thereby creating more radically and sharply carved contrast between extreme dynamics: in mm. 1–2, the contrast between \textit{ff} and \textit{pp} is established at every half measure; the pace of alternation increases in mm. 3–4, at every quarter beat. Then \textit{pp} fills m. 5, which brings an effect of spatial distance to the preceding four measures, as if the individual highpoints were
lifted and surrounded by atmospheric emptiness.

Example 1.1.11. Juxtaposition of contrasting dynamics

Discharge of highpoint generally involves the maximum energy created by dynamics, harmony, pace, motive, instrumentation, texture, etc. In Kurth’s example—unfortunately not provided in his text—each instrumental group takes different roles for this stage. The brass instruments frequently execute triadic figures. They carry chords in a calm, static, and broad

\[\text{Example 1.1.11. Juxtaposition of contrasting dynamics}\]

\[\text{Discharge of highpoint generally involves the maximum energy created by dynamics, harmony, pace, motive, instrumentation, texture, etc. In Kurth’s example—unfortunately not provided in his text—each instrumental group takes different roles for this stage. The brass instruments frequently execute triadic figures. They carry chords in a calm, static, and broad}\]

35 Although Kurth spends much time discussing the teleological phenomenon of triadic revelation in this stage, that is a technique characteristic of Bruckner’s highpoints specifically, rather than a feature of highpoint as a climax stage. The attendant example nonetheless illuminates the tendency of parametric interaction to contribute to highpoint.
manner, majestically revealing triadic harmonies which previously existed as potential.\textsuperscript{36} This is in high contrast to the woodwind group, whose huriedly ascending figures consolidate the rhythm by shifting to uniform eighths or triplets during the surge towards highpoint.\textsuperscript{37} In the strings, diverse rhythms often intermingle with each other in the different voices: tremolos over sustaining tones in the middle voice, clear linear motion in the higher voice. The rhythmic incongruity between the instrumental groups results in the brass group’s broad rhythm against the more vibrant external rhythms in the winds and strings.

The aftermath of highpoint discharge is highpoint ebbing, characterized by dynamic decrease, rhythmic deactivation, lowering the register, etc. These parameters are soon seen again in the deintensification; however, the falling gesture is not as aggressive in the deintensification.

In Kurth’s analysis, the “void”—a cessation or resting of motion that encompasses silence, bare textures, weak dynamics, rhythmic and melodic deactivation, wide registral space, and minimal instrumentation—is a striking phenomenon found during highpoint ebbing. The void invokes the phenomenon of abruptly closing the eyes after looking into bright light but still seeing light effects behind the eyelids (as in the last few measures in Example 1.1.9). The apparent lack of dynamic momentum does not, however, stymie the dynamic arc; rather, it produces a sense of infinitude and sounds “more absolute, more immediate, and more spatially powerful,” particularly in its potential to usher in a new rise in the highpoint area. Highpoint ebbing is thus understood not as the absolute end of the highpoint area, but allows the possibility of continuous progression, reinforcing the incessant dynamic motion central to Kurth’s climax.

\textsuperscript{36} Kurth’s notion of highpoint is teleological: he interprets the revelation of the long anticipated triad as the realization of something that potentially existed.

\textsuperscript{37} Kurth mentions that Wagner and Liszt especially loved this technique.
Example 1.1.12 shows abrupt highpoint ebbing. The **fff** highpoint (m. 1) drops into silence (m. 2); this juxtaposition occurs in each measure of mm. 3–4. Mm. 5–8 are the reaction to this sudden void and depth: the wind instruments drop out at m. 5 in **pp**, and the melody loses momentum in mm. 6–8.

![Example 1.1.12. Void in highpoint ebbing](image)

In Example 1.1.13, successive voids ultimately produce new dynamic arcs. The **fff** highpoint in mm. 1–3/1 dies away through a series of rest in mm. 3/2–4; a new gesture emerges in m. 5 only to fade again via a full fermata-prolonged rest in m. 6; the next dynamic wave starts in m. 7, and ends with a void via a whole rest in m. 10; new space opens in m. 11, as the bassoon
introduces a descending melody giving a sense of depth in m. 11. Although the passage contains multiple dynamic arcs rising from the voids, their dynamic intensity does not reach a significant level in the phase of highpoint ebbing.

Example 1.1.13. Dynamic waves emerging from the void in highpoint ebbing

Juxtaposition of higher and lower registers may also occur in highpoint ebbing to enhance the spaciousness of the void, as in the sudden *pp* of Example 1.1.14; a theme fades away in the higher strings with an upward motion over a static, muted double bass, which symbolizes the depth.
Example 1.1.14. Juxtaposition of higher and lower registers

The potential for further dynamic waves from the void is contained in “turmoil,” any small, preparatory gesture that starts from the void and develops into a dynamic wave.

There is often a longer passage of torn-open voids, in which restless and gentle forces rise; these series of sound sometimes have a long-lasting effect, and sometimes pile up towards new initiations in the discharged sound ambience. Here, within the muffled or often peculiarly plain, but never fully consolidated sounds, oddly tense twitches of thematic fragments emerge like prefigurations of the upcoming material [...].

Turmoil prefigures formal elements which will later be fully realized. In Example 1.1.15, for instance, the strings start to play exciting, tumultuous motives at the end of m. 6; these gradually agglomerate to lead to the powerful outburst (unseen in the excerpt).”

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Turmoil is part of a larger technique for generating dynamism even within the liminal space of highpoint ebbing. “What one first has to understand about such processes [of void and turmoil] is that they carry out developmental parts not as episodes for themselves but as completely organic form-elements.”39 In this way, seemingly less energetic events are inextricably bound to the larger dynamic arc, mainly through their potential for later development.

**Deintensification (subchapter 12)**

Deintensification (Rückentwicklung) is the subsiding phase of the dynamic arc.40 The processes of energy dissipation in this stage are aggressive and substantial, and may occur as a sudden decay of energy or a steady, progressive subsiding. Techniques used for building intensification are often turned around and deconstructed. For instance, developmental motives

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40 Kurth does not furnish musical examples in this subchapter.
undergo a process of energetic deactivation; are broken down quickly; and appear in less concentrated forms, with less interlocking than that found in the intensification. Likewise, descending sequences may develop in freer form than in the rising phase of a dynamic arc.

Deintensification is always understood in the larger context of continuous dynamism; it may appear to be empty or static, but nonetheless continues the dynamic motion. Indeed, in Bruckner, deintensification often eventually transitions into preparation for a new dynamic wave. Thus, it is not an absolute end of the dynamic motion, but opens up further proceedings; again, a strict boundary between divisions may be obscured, emphasizing the continuous process of musical dynamism.

**Typical Forms of Large-Scale Tension. Tendency toward Tripartition (subchapter 13)**

In this final subchapter, Kurth reflects on a principle in his concept of form; he suggests tripartition (*Dreiheit*) as a large-scale formal organization pervading musical dynamism. This principle is based on the proportional relation between quieter and more active sections, and consists of 1) a lengthy, slow wave; 2) a short, fast wave; 3) and another long, slow wave. The dynamic motion begins calmly and restfully; the second stage is faster with increased driving momentum for a building-up action, but does not achieve highpoint despite its growing kinetic energy; the third stage enhances the tension and energy as well, but through long and slow growth. These three stages are not demarcated by external symmetry or rigid segmentation, but are a unified and coherent entity based on the balance between restfulness and action.

Where dyad or bipartition defines symmetrical structures, tripartition embodies the essential striving character of dynamism. The potentiality of tripartition may be unconscious, but
its realization becomes conscious formal construction.\textsuperscript{41} Yet how this is achieved is unclear, due to the lack of musical examples or precise analytical context in Kurth’s text. His discussion is highly abstract, which may be attributed to his interest in the extramusical foundations of tripartition. This in turn is heavily influenced by his subject, as Bruckner was deeply religious: three is an indivisible number, and perfect in Christian theology.

In Kurth’s climax theory, dynamic waves cover a wide range of musical events, from just a few measures of sound flanked by rests or voids, to larger formal units such as a section in sonata form. Multiple waves make up bigger waves, which become a constituent of an even bigger wave, potentially ad infinitum. At the same time, each wave is not structured in absolutely closed form but connected to the following wave through unstoppable forward momentum, which continues even through the falling phase of a dynamic wave. This vertical and horizontal continuity is the core character of Kurth’s climax process.

Post-Kurthian studies make climax and its building processes more accessible, by virtue of avoiding Kurthian speculative and overtly philosophical approach, in favor of focusing on technical and analytical aspects using specific references to score examples. These studies are surveyed in the following subchapter.

\textsuperscript{41} Specifically, Kurth notes that the contrast between two thematic groups no longer works well in the dynamic form, as themes continuously develop with intensification in a succession of large, cohesive waves. The development of waves is a fluid playing-out operated by the goal-oriented will.
1.2 Synonyms for Climax and Highpoint in Music Analysis

The term “climax” generally refers to a moment of maximum energy or the process of accumulating tension toward a goal. However, the term carries very diverse ramifications within music scholarship, ranging from analytical, psychological, statistical, and physiological dimensions. Indeed, climax has been interpreted differently by different scholars. Furthermore, some synonymous terms share common attributes with climax, although their meanings are not wholly identical. In this subchapter, I inspect terms relevant to climax, compare their meanings in musical discourse, and trace the possible relationships among them. Table 1.2.1 coordinates climax-related terms, their defining element or signature attribute, pertinent repertoire and composers, and contributing scholars.42

42 With the exception of breakthrough (Durchbruch), all the terms discussed herein were coined and/or widely circulated after Kurth’s work on climax and highpoint.
<table>
<thead>
<tr>
<th>Terms</th>
<th>Defining element or signature attribute</th>
<th>Repertoire or composers</th>
<th>Scholars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakthrough</td>
<td>Intrusive event in sonata form</td>
<td>Mahler</td>
<td>Bekker (1921), Adorno (1963)</td>
</tr>
<tr>
<td>(Durchbruch)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highpoint</td>
<td>Most climactic area in a dynamic arc</td>
<td>Bruckner</td>
<td>Kurth (1925)</td>
</tr>
<tr>
<td>(Höhepunkt)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apotheosis</td>
<td>Most climactic presentation of a</td>
<td>Chopin, Liszt, and</td>
<td>Cone (1964)</td>
</tr>
<tr>
<td></td>
<td>previously heard theme</td>
<td>Wagner</td>
<td></td>
</tr>
<tr>
<td>Groundswell</td>
<td>Phrase pattern featuring dynamic swell</td>
<td>Bel canto composers</td>
<td>Budden (1973); Kerman and Grey (1989)</td>
</tr>
<tr>
<td></td>
<td>in Italian Romantic opera</td>
<td>and Verdi</td>
<td></td>
</tr>
<tr>
<td>Rhythmic acceleration</td>
<td>Increasing occurrence of established</td>
<td>Beethoven</td>
<td>Berry (1978)</td>
</tr>
<tr>
<td></td>
<td>parameters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syntactic climax</td>
<td>Change from instability to stability</td>
<td>Classical music</td>
<td>Meyer (1980)</td>
</tr>
<tr>
<td></td>
<td>via “primary parameters” (harmonic,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>rhythmic, or melodic parameters)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistical climax</td>
<td>Physical intensity via “secondary</td>
<td>Romantic music</td>
<td></td>
</tr>
<tr>
<td></td>
<td>parameters” (ascending melody, strongest</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dynamics, dense texture, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural highpoint</td>
<td>Flexible: highest pitch, dissonant or</td>
<td>Schumann, Chopin,</td>
<td>Agawu (1982)</td>
</tr>
<tr>
<td></td>
<td>unstable chord, harmonic resolution,</td>
<td>Wagner, Mahler, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>poignant word, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High region</td>
<td>Sustained state of intensity</td>
<td>Various</td>
<td></td>
</tr>
<tr>
<td>Telos</td>
<td>The final rotation of a motive, phrase,</td>
<td>Mozart, Beethoven,</td>
<td>Hepokoski (1993), Darcy (2005)</td>
</tr>
<tr>
<td></td>
<td>or other formal unit in a sonata or</td>
<td>Wagner, Sibelius, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rotational form</td>
<td></td>
<td></td>
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<tr>
<td>Peak</td>
<td>Highest pitch</td>
<td>Haydn, Chopin, Berg</td>
<td>Eitan (1997)</td>
</tr>
<tr>
<td>Arrival 6/4</td>
<td>Cadential 6/4 that does not necessarily</td>
<td>Classical and Romantic</td>
<td>Hatten (2004)</td>
</tr>
<tr>
<td></td>
<td>resolve to V(7)</td>
<td>music</td>
<td></td>
</tr>
<tr>
<td>Climax</td>
<td>High pitch, loud dynamic level, and</td>
<td>n/a</td>
<td>Huron (2007)</td>
</tr>
<tr>
<td></td>
<td>relatively dissonant sonorities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musical climax</td>
<td>Culmination of musical dynamism</td>
<td>Brahms</td>
<td>Patty (2009)</td>
</tr>
</tbody>
</table>

**Table 1.2.1. Terms related to climax and highpoint**
Breakthrough (Bekker, Adorno)

“Durchburch,” translated as breakthrough, was first used by Paul Bekker in analyzing the first movement of Mahler’s Symphony No. 1.43 Adorno refashioned it for his music-sociological theory, in which breakthrough is a jarring musical event—typically an eruption of unprepared musical material—disrupting the musical narrative, creating “an impression of chaos.” For example, Adorno notes that a fanfare passage in this movement exemplifies breakthrough.44

Then, at the height of the movement, six measures before the return of the tonic D, the fanfare explodes in the trumpets, horns, and high woodwinds, quite out of scale with the orchestra’s previous sound or even the preceding crescendo. It is not so much that this crescendo has reached a climax as that the music has expanded with a physical jolt.45

This breakthrough is a disorienting event, forcing the listener to reassess the musical narrative.

The revelatory nature of the breakthrough material in turn affects the formal structure:

The breakthrough in the First Symphony affects the entire form. The recapitulation to which it leads cannot restore the balance demanded by sonata form. It shrinks to a hasty epilogue. The young composer’s sense of form treats it as a coda, without thematic development of its own; the memory of the main idea drives the music swiftly to its end. But the abbreviation of the recapitulation is prepared by the exposition, which dispenses with multiplicity of forms and the traditional thematic dualism and so needs no complex restitution. The idea of breakthrough, which dictates the entire structure of the movement, transcends the traditional form while fleetingly sketching its outline.46

In this sense, breakthrough is not just an aurally compelling event, but carries far-

43 Paul Bekker’s book is translated to English by Kelly Dean Hansen, “Gustav Mahler’s Symphonies (Gustav Mahlers Sinfonien) by Paul Bekker (1921): A Translation with Commentary” (PhD diss., University of Colorado at Boulder, 2012)


46 Adorno, Mahler, 5–6.
reaching structural importance, as the moment of climax affects understanding of the entire movement. On this basis, scholars have incorporated breakthrough into the analysis of sonata form, in conjunction with narrative meaning or as a technical device for analysis. In James Buhler’s explanation, breakthrough redirects the musical narrative.

Breakthrough is a moment of structural reorientation, a deflection or “turning-aside” (Ablenkung) from the expected formal course of a piece. It differs from simple interruption in having not just local, but also large-scale formal consequence. The opposite of tragic reversal or catastrophe, breakthrough is an unforeseen event, a sudden turn toward transcendence from an expected formal trajectory of tragedy.47

Buhler finds an example of this narrative change at the moment of a breakthrough in the final movement of Mahler’s First Symphony, hermeneutically read as a shift from the tragic to transcendence: in the recapitulation, the pessimism and gloom of F minor (mm. 533–622) is transformed with the breakthrough (m. 623) motion towards a victorious D major.48 As such, Buhler sees breakthrough as clarifying the workings and role of a new process within an established form. Hepokoski’s discussion likewise takes place within the context of sonata form:

Breakthrough involves abandoning or profoundly correcting the originally proposed sonata through the inbreaking of an emphatic, unforeseen idea at some post-expositional point, usually during the space customarily given over to the development.49

In the second movement of Mahler’s Symphony No. 5 (Example 1.2.1), John Sheinbaum identifies breakthrough (mm. 464–519, a chorale-like passage) which contains the highpoint (m.


48 Buhler’s discussion is based on Sponheuer’s. According to Buhler’s diagram, the final movement is structured in three sections, suggesting a loosely-knit sonata form: exposition (mm. 1–237), development (mm. 238–427), recapitulation and coda (mm. 428–656 and mm. 657–731).

The movement in A minor consists of alternating thematic sections, one stormy and unstable, the other wistful and languid. According to Sheinbaum, although the breakthrough in D major is ultimately related to other movements in terms of key, the chorale material sounds completely unexpected and intrusive in the midst of the sectional alternations. The breakthrough starts with a massive D-major chord, with Mahler’s performance marking *pesante* (heavy and ponderous) and *plötzlich etwas anhaltend* (suddenly somewhat slower).

The passage has profound implications for the eventual trajectory of the entire symphony: D major is also the tonic of the finale, and the chorale passage here is recapitulated at the conclusion of the last movement [...] But here, in the midst of the alternately stormy and wistful A minor second movement, the chorale material sounds like and functions as a breakthrough, as something totally unprepared, and seemingly from outside the bounds of the work.

Sheinbaum focuses on timbre of certain instruments in creating the breakthrough and its narrative meaning. He notes that trumpets and trombones enter right before the breakthrough while all other instruments suddenly drop out; likewise, the tempo indication *plötzlich etwas anhaltend* right after *ritardando* at the onset of the breakthrough creates a “sonic break” emphasizing the sense of disjunction and newness. The resulting sound quality—“loud, massed brasses present full-bodied chorale and fanfare topics”—is heraldic, “announcing the rupture.”

There are significant similarities between breakthrough and apotheosis; the extramusical meaning of breakthrough also resonates with that of apotheosis, suggesting revelation, epiphany,
and transcendence (see the next entry), but they function differently in musical narratives: breakthrough literally breaks into the established formal logic, whereas apotheosis is integrated into the narrative development as the final culmination. Furthermore, breakthrough does not require thematic or motivic precedent, as it arrives—and acts—as a interrupting dynamic force; apotheosis is premised on dynamic comparison with earlier statements of a theme or motive. The applied formal units for each device are likewise distinct: Adorno derives breakthrough from analysis of Mahler's symphonies in relation to sonata form, and the concept is principally used for discussion of those works, or similar repertoire; apotheosis is generally considered on a thematic or motivic level, and regularly applied to a wider spectrum of genres.
Example 1.2.1. Mahler, Symphony No. 5, second movement, mm. 464ff
(breakthrough and highpoint)
Apotheosis (Cone)

“Apotheosis” originates from the Greek: “apo”—away, from, off, or asunder; “theo”—god; and “-osis,” a suffix denoting action, state, or condition. In English, the term is used for exaltation or elevation to divine status (deification), the culminating point of development, or glorification. In music, the term is specifically related to the thematic appearance, although it can be used interchangeably with climax or highpoint in a broad sense; if the final occurrence of a previously heard theme is stated with maximum energy, it is apotheosis.

Edward Cone circulates this term through his discourse on Chopin; he considers the Polonaise-Fantasy in A-flat major as the clearest example of the device. He outlines apotheosis as:

[a] special kind of recapitulation that reveals unexpected harmonic richness and textural excitement in a theme previously presented with a deliberately restricted harmonization and a relatively drab accompaniment.

Thus, apotheosis is a device grounded in thematic transformation, which is one of the main compositional principles in Romantic music. Leonard Meyer defines apotheosis as “a highpoint characterized by the stability of a grand assertion of a coherent theme—often one that had previously been fragmented or partial.” In these definitions, apotheosis is contextual, requiring...

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54 Edward Cone, *Musical Form and Musical Performance* (New York: W. W. Norton & Company, 1964), 84. Michael Klein states, “if characters in a narrative change over time, then the themes that represent them or their emotional states must change over time as well. Thus apotheosis is both a structural and expressive transformation of a theme.” He applies apotheosis to his narrative analyses of Chopin’s Ballades and the Barcarolle. See Klein, “Chopin’s Fourth Ballade as Musical Narrative,” *Music Theory Spectrum* 26/1 (2004), 23–56.

55 Cone discusses thematic transformation by comparing Classical and Romantic composers: in the former, a theme is a complete melodic, harmonic, rhythmic, and textural structure; in the latter, a melody frequently appears as an independent unit with varied harmony, rhythm, and texture. Cone, *Musical Form and Musical Performance*, 84.

a theme to appear multiple times with changing degrees of dynamic energy. Apotheosis is, therefore, a concept that is based on the relativity of dynamic energy, in that a thematic statement is assessed through comparison with previous occurrences of a theme. Importantly, the motion toward an apotheosis is not necessarily progressive, i.e., requiring thematic evolution or consistent dynamic growth; for example, a third pre-apotheosis thematic statement may not be more energetic than a second statement. That the gradual growth of theme, motive, or phrase is not necessary for apotheosis distinguishes it from the telos in rotational form: telos assumes a goal-directed process with consistent enhancement towards the final rotational occurrence; while apotheosis is created through and defined in part by process, its essential point is the final thematic statement itself rather than the process toward it.

As apotheosis is most often defined in terms of thematic presentation, it is particularly relevant to verismo operas woven through with recurring themes; the final climactic occurrence of a recurring theme can be an example of apotheosis, as shown in the analyses of Chapter 5.

**Groundswell (Budden, Kerman and Grey)**

Among the terms and concepts discussed in this subchapter, “groundswell” alone derives specifically from opera analysis. The term originally appeared in Julian Budden’s study of Verdi’s operas, principally in his discussion of aria and ensemble numbers from the early nineteenth century. Later, Joseph Kerman and Thomas Grey refined the concept and located corresponding examples in the works of *bel canto* composers and Verdi in their article “Verdi’s

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57 In the Merriam-Webster English Dictionary, “groundswell” is defined as: 1. a broad deep undulation of the ocean caused by an often distant gale or seismic disturbance; 2. a rapid spontaneous growth (as of political opinion).

Groundswell: An Operatic Convention.”59

Kerman and Grey define groundswell as “a stereotyped phrase-pattern and concomitant harmonic formula, which typically functions as an emphatic cadential period for the largo concertato section of a large-scale ensemble finale.”60 Groundswell weaves together phrase pattern, harmonic scheme, and formal function to create a grandiose, climactic conclusion. An example of the groundswell in their analysis is the final stretta of Act 2 in Bellini’s Norma; according to them, the passage is structured in an $a a’ b c$ form (Example 1.2.2).

(1) a regular alternation of tonic and dominant harmonies (normally $a$ and $a’$—in this case Bellini includes an extra, introductory statement without soloists); (2) a contrasting, tension-building phrase $b$ involving sequential harmonic progressions with rising treble and bass lines; (3) a grandiose cadential descent, here capped by crashing cymbals and on the downbeat; and (4) the repetition of the whole series for an added sense of weight and expansiveness.61

According to this description, the dynamic fluctuation in groundswell is presented in three stages: 1) a stable onset, 2) dynamic rise through rising dynamism, and 3) achievement of cadential closure and subsequent dynamic subsiding. These three stages form a unified dynamic arc, the ebb and flow of dynamic momentum. Significantly, Kerman and Grey mention that the groundswell process can be labeled as $a a’ b c$, which can be seen as a derivation of lyric form.

Throughout the essay, Kerman and Grey trace the development and modifications of groundswell in terms of phrase design, harmony, and dramatic mood. One of their most original

59 Joseph Kerman and Thomas Grey, “Verdi’s Groundswell: An Operatic Convention,” in Analyzing Opera, ed. Carolyn Abbate and Roger Parker (Berkeley: University of California Press, 1989), 153–79. “Groundswell” appears in analysis of non-operatic works as well, in which case, it is a generic term broadly describing a crescendo gesture or process. However, as discussed in this entry, groundswell in opera analysis is tied to particular operatic styles, composers, and formal contexts.


contributions for analytical purposes is their examination of groundswell beyond local-level phrase divisions: their last analysis of the Act 3 finale of *Otello* demonstrates groundswell in a large-scale frame, where two formal sections are compounded into a single unit of groundswell. Here, the authors argue that A₂’ (mm. 79–88) plus A₃’ (mm. 89–96) can be considered a groundswell with a a’ b c structure. This analysis suggests the possibility of integrating groundswell with traditional formal division.

The dynamic rise and fall in the given passage is the signature attribute of groundswell. Indeed, the main idea of groundswell is the dynamic trajectory prioritized over any other musical or textual elements. Such aspects will serve as a cornerstone for my climax theory, an organizational model with detailed construction rules for the analysis of opera.

Example 1.2.2. Analysis of the final stretta of Norma, Act 2 based on groundswell (a a’ b c), after Kerman and Grey
Rhythmic Acceleration (Berry)

Wallace Berry discussed the process of acceleration in his article “Rhythmic Acceleration in Beethoven.”63 His approach is essentially statistical. Beyond the narrow sense of acceleration within rhythmic parameters, Berry addresses pace change in the development sections of Beethoven’s symphonies across all musical elements (e.g. dynamics, orchestration, melody, texture, harmony, meter, dissonance, chromaticism, etc.). He defines “rhythmic acceleration” as:

An increase in the frequency of articulation—an increase in the number of occurrences of things of a stated kind, per unit of time. Thus, if a rhythm is demonstrably accelerative, it means that time spans separating articulations within a stipulated element are shorter than those of some other context of reference or that they become shorter in a directed process within the particular context in question.64

Berry notes the snowballing tendency in which “the rate of increased frequency itself increases”—for instance, a process of halving can be stable (8–4–2), but tends to multiply as it progresses (8–4–1, where the halving is itself halved to quartering).

Berry’s research predicts Meyer’s “statistical climax” (see next entry), a straightforward statistical approach to assessing musical dynamism. A limitation of Berry’s approach is its concentration on different parameters as individual phenomena and relative lack of consideration for the concurrence of their co-function.

Syntactic and Statistical Climaxes (Meyer)

Meyer is a linchpin figure for his sorting of climaxes according to musical style, repertoire, and era. He identifies two different kinds of climax: “syntactic climax” for Classical

64 Berry, “Rhythmic Acceleration,” 178.
music and “statistical climax” for Romantic music.65

A syntactic climax is a result of what was earlier called reversal: that is, a change in which forms and processes shaped by the primary parameters of melody, rhythm, and harmony move from a state characterized by relative mobility, ambiguity, uniformity, or irregularity, to one of relative stability, coherent process, and clear form. A statistical climax, or “apotheosis,” on the other hand, consists of a gradual increase in the intensity of the more physical attributes of sound, the arrival at a tensional “highpoint,” followed by a usually rapid decline in activity—a falling-away to quiet and closure. Because the intensity of the secondary parameters that shape such processes can be measured and quantified—for example, the increase or decrease in dynamics (intensity), in pitch (as frequency), rate of note succession, timbre, and tempo—they have been called statistical.66

According to Meyer’s explanation, syntactic climax is a process in which uncertainty changes to certainty through “reversal.”67 Meyer suggests three parameters for syntactic climax: harmony, rhythm, and melody. Rhetorical factors, such as the loudest dynamic and volume, highest pitch, and densest texture are not determining factors in identifying syntactic climaxes. Of the three parameters, harmony is the most easily demonstrated as its change from instability to stability can be clearly articulated—for example, in a cadential progression, where unstable dissonant chords resolve to stable consonant chords. Although melody and rhythm are important factors for syntactic climax as well, Meyer does not provide musical examples in which either functions as the sole determinant of syntactic climax. Nevertheless, one can conjecture that syntactic climax via rhythm and melody might occur as a gradual transformation from an amorphous state to more regular, periodic, or catchy shape. These parameters must be more


66 Measurement and quantification is exactly what Berry does in his article “Rhythmic Acceleration,” where he analyzes the occurrence rate of various parameters.

67 Meyer mentions that “in reversal[,] ambiguities are resolved and unstable relationships are replaced by stable, well-shaped patterns.” See Meyer, Style and Music, 304.
concretely thought out; in the meantime, harmony remains the most assured and accessible identifier for syntactic climax.

In contrast, statistical climax indicates the process of tension building toward the eventual achievement of highpoint—the very concept of climax and highpoint as a compelling aural phenomenon that this dissertation examines. It is produced mainly by Meyer’s secondary parameters, such as dynamics, pitch, pace, tempo, timbre, texture, and so on—any parameter that can contribute to immediate sound intensification. Meyer ascribes emerging significance of these elements to the increase in the size of musical movements and the gradual delay of statistical climax in musical passages during the Romantic period.

I suggest that the increasing importance of statistical form, coupled with the considerable growth in the size (length) of movements, leads to important changes in the structure of sonata-form movements, and more specifically to the changes in the placement of the statistical climax—that is, the place at which the secondary parameters reach their greatest degree of intensity: highest (and lowest) pitches, most frequent rate of attack, high acoustic tension (discord), loudest dynamic, most forceful sonorities, and densest textures […] for Beethoven statistical climax is more emphatic and more focal, and it tends to occur just before the recapitulation or in what is sometimes referred to as a second development (as in the coda of the first movement of the Third Symphony). In “high” Romantic symphonies the statistical climax also tends to occur late in the form, often in the coda.

The importance of location in statistical climax also distinguishes it from syntactic climax. The relatively earlier placement of syntactic climax is because the change from

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68 Meyer analyzes “Isolde’s Transfiguration” to demonstrate statistical form. He traces the process of growing intensity, which reaches its highpoint at mm. 61–64. See Style and Music, 311–25.

69 Meyer, Style and Music, 306. A passage right before the recapitulation in sonata form is usually part of the retransition over a dominant pedal; notably, this location serves a significant structural function prior to the tonic’s arrival at the beginning of the recapitulation, which strongly clarifies the syntax of sonata form design. At the same time, the retransition is frequently emphasized by statistical parameters such as loudness, thick texture, and instrumental augmentation. This confluence of statistical and syntactic climaxes in the retransition creates synergetic momentum.
ambiguity to clarity through the primary parameters does not necessarily require the piece to close fully. In contrast, statistical climax must come late in the musical structure, lest what comes after be perceived as boring and lacking driving force—like popping champagne too soon. Meyer says that the only way to continue statistical climax is to initiate a new wave, constructing the climax as a succession of dynamic waves. Specifically, he calls this process the “Sisyphean sequence,” motivic or thematic repetition via sequential progressions driven by ever-growing intensity. 70 This concept was initially applied to motivic recurrence, but Meyer suggests its further application to large-scale formal unit.

Although syntactic and statistical climaxes can appeal equally to attentive listeners, statistical climax is more sensually oriented, as perceiving statistical elements is more intuitive than perceiving syntactic parameters. Recognizing the loudest sound and highest pitch does not require intellectual thinking, preliminary musical knowledge, or recognition of a formal structure. The effect of statistical climax for the listener is unmediated; as Meyer remarks, “only the deaf or hidebound could fail to respond to its overwhelming force and passion.” 71

Meyer’s principal attitude toward the perceptual aspect of statistical climax can be traced back to Kurth, as Meyer’s wording of statistical climax resonates with Kurth’s concept. Both scholars are concerned with the immediate aural effect of climax in nineteenth-century music, dealing with its sensory appeal and its generators encoded in the score. Interest in listening-oriented elements is a natural outcome of this stance; it is not that structural elements are

71 Meyer, Style and Music, 322. Meyer associates the music dominated by secondary parameters with a particular social perspective, arguing that such music is egalitarian due to the perceptual universality. He interprets that this egalitarianism in listening metaphorically signifies social solidity and unity.
excluded, but a promptly perceived musical phenomenon takes precedence over those obtained through conscious analysis and syntactic understanding.

Furthermore, their respective explanations of large-scale climax structure are related. As seen in Chapter 1.1, Kurth suggests the term “surmounting” (Übersteigerung) to describe successive occurrences of dynamic waves, where one climax surpasses that preceding it in terms of dynamic intensity. Meyer’s “cumulative wave-form pattern” commonly found in nineteenth-century music, illustrates the same phenomenon (Sisyphean struggle): a climax rises then falls, only to rise again by exerting more energy.\(^{72}\) This arduous labor of consistent overcoming is repeated over and over, which eventually creates an overarching ascending trajectory.

Considering these connections, Kurth’s theory and analysis of climax—it’s concept, attributes, and large-scale construction—reverberate in Meyer’s statistical climax, with both concepts grounded in sheer dynamism and the perception thereof. Their common interest in musical dynamism facilitates our understanding of the climax phenomenon primarily as an aural experience and its significance as a serious topic for research.

**Structural Highpoint (Agawu)**

In colloquial practice, “climax” and “highpoint” are used interchangeably. Kofi Agawu, however, argues for more distinctly calibrated meanings: “climax,” from the Greek “klimax”—ladder or staircase—suggests “an arrangement of figures in ascending order of intensity.” On the other hand, “highpoint” is more narrowly focused, denoting “only the point of culmination.”\(^{73}\) Agawu clarifies climax as a process of tension building, with highpoint being a single moment of


Agawu also provides the term “structural highpoint.” His use of the word “structural” here is interpreted broadly compared to its usual architectural connotation; all of the parameters he finds for identifying the highpoints both in the musical and extramusical spheres are considered “structural.” Accordingly, the idea of structural highpoint is flexibly contingent on analytical focus: the highpoint may be the highest pitch, the final stage of a sequence, poetic turning point, poignant dissonance, syntactic closure in Schenkerian analysis, and so on. Since Agawu selects analytical parameters according to the best suitability of his theory for each passage, the concept of structural highpoint works quite well for diverse contexts, from deep-level Schenkerian analysis to rhetorically salient events. Consequently, Agawu proposes the notion of structural highpoint as an alternative to Meyer’s (relatively restricted) “primary” parameters, finding the latter unsuitable for analysis of Schumann and other Romantic composers.

**High Region (Agawu)**

In Agawu’s “high region,” a single moment of highpoint is replaced with a sustained state of intensity: “a stretch of music of high activity, prepared in the same way as other highpoints, but prolonged over a significant period.” However, high region is not stasis, because it also continues to accumulate energy and contains acute highpoints. In his analysis of “Ich hab’ im Traum geweinet” from *Dichterliebe*, mm. 28–33, Agawu says that a high region is comprised of 1) intensification of voice leading by parallel chromaticism in the piano accompaniment; 2) the sustained D-flat5 in the vocal line, which provides a sharp contrast to the

chromatic motion in the piano; 3) and the dynamic increase from *pp* in m. 25 to a presumed *f* in m. 31 (Example 1.2.3). \(^7^5\)

Example 1.2.3. High region in *Dichterliebe*, “Ich hab’ im Traum geweinet,” mm. 28–34

The repetition of D-flat\(^5\) in the vocal melody is the most contributing factor to a plateau-like high region. However, the tension still continues to rise. In conjunction with the poetic sentiment and lyrical expression, Agawu identifies two highpoints, melodic and harmonic: the melodic highpoint is F-flat\(^5\) in m. 31 (the first two syllables of “Thränenfluth” meaning “flow of tears”), where the voice finally emerges from the D-flat plateau. The harmonic highpoint is “an emphatic local dissonance” in mm. 32–33 that carries an extramusical meaning; Agawu interprets that “[the chord] underlines the bitterness of the protagonist on awaking from this third dream.”

\(^7^5\) Agawu, “Structural Highpoint,” 171.
His reading of the high region offers several incisive points for climax analysis. First, the concept of high region is not indicative of stasis or merely sustaining the same kinetic level, but contains its own dynamic presence. This allows for a more nuanced reading of the climax phenomenon where it does not always align with the simple categorization of highpoint and climax. Second, multiple highpoints are possible within a single high region or climax passage, depending on what parameter is concerned. In the example above, both melody and harmony are considered in defining highpoint, resulting in multiple highpoints. The high region is a place in which multiple parameters, and multiple parametric levels, may be synthesized, even when they are not simultaneous; they are not isolated, unrelated moments, but equally contribute to a collective, holistic dynamism. The significance of the high region in climax building therefore invites subtle interaction and collaboration among diverse climax parameters over a seemingly static, but actually still active dynamic phase.

**Telos (Hepokoski and Darcy)**

Meaning goal or end, “telos” typically appears in the discourse on sonata and rotational forms. James Hepokoski and Warren Darcy are the principal circulators for the term’s use in form analysis. It is broadly applicable to the final round in a teleological process, which ranges from a short motivic cell to a large-scale formal unit. In his book on Sibelius, Hepokoski defines telos:

In its classical pattern, a mere motivic gesture or hint is planted unobtrusively in an early rotation; it then grows in later rotations and is ultimately fully unfurled—as the telos—in the final one.\(^76\)

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\(^{76}\) Hepokoski, *Sibelius, Symphony No. 5* (New York: Cambridge University Press, 1993), 26. For his explanation on rotational form and teleological genesis, see pp. 23–26.
Likewise, Darcy identifies telos as the final rotation, in which previously suggested motivic potentials or allusions fully materialize.  

A cyclical, repetitive process that begins by unfolding a series of differentiated motives or themes as a referential statement or ‘first rotation’; subsequent rotations recycle and rework all or most of the referential statement, normally retaining the sequential ordering of the selected musical ideas. In addition, it sometimes happens that a brief motivic gesture or hint planted in an early rotation grows larger in later rotations and is ultimately unfurled as the telos, or final structural goal, in the last rotation. Thus the successive rotations become a sort of generative matrix within which this telos is engendered, processed, nurtured, and brought to full presence.

In this definition, telos involves a developmental continuum towards the revelatory point. For example, Hepokoski identifies the first theme of the first movement of Beethoven’s Symphony No. 9 as an end-accented teleological theme, which grows from silence to emphatic revelation through the gradual process of intensification. At first glimpse, this process is similar to apotheosis, in that the latter is also the realization of a theme in its most splendid guise for the final return. Yet telos is more consistently developmental and evolutionary than apotheosis, like the organic process of seed germination. Thus, telos is premised on consideration of a larger rotational context, whereas apotheosis emphasizes the final thematic statement itself.

Telos on the level of the structural unit is seen in Darcy’s analysis of Wagner’s Parsifal, Act 2, Scene 1. The scene breaks down to four rotations, each consisting of two sections. Telos is achieved at the end of the fourth rotation’s first section: it coincides with the moment of harmonic resolution via authentic cadence; the final complete presentation of the primary motive

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79 Darcy, “Rotational Form and Hexatonic Magic in Act 2 Scene 1 of Parsifal,” 218.
(Parsifal); the conclusion of the rotational unit; and the protagonist’s triumph over his antagonist. All these meet at the telos, which is the most dramatically impressive and structurally significant musical event of the scene.80

Hepokoski explains the gestural effect of telos through analogy: “when combined with a rotational structure that progressively becomes more complex or ‘revelatory’ with each cycling, teleological genesis can take on an elemental, mythic effect: the patient rocking of the cradle, or the ritualistic nurturing or preparing for the birth of something new.”81 Following this metaphor, telos is not only the final round of rotational process, but invokes a sense of epiphany, transcendence, or transfiguration. This extramusical association, coupled with musical glorification, may render telos particularly suitable for the analysis of dramatically charged scenes in opera such as that Darcy discusses in *Parsifal*.

**Arrival 6/4 (Hatten)**

Conceived by Robert Hatten, the “arrival 6/4” is a cadential 6/4 chord that resolves a preceding dissonant harmony (e.g., diminished seventh or augmented sixth chord) but does not necessarily proceed to V(7). Due to the resolution’s instant aural-psychological effect, the chord frequently signifies transcendence, the sublime, and spiritual elevation in a given narrative reading. Hatten defines the arrival 6/4 as:

Expressively focal cadential six-four serving as resolution of thematic or tonal instabilities, often with a Picardy-third effect. Need not resolve to V; its rhetorical function may displace its syntactic function, at least locally.82

80 The confluence of various parameters in the telos in Darcy’s analysis involves syntactic climax (harmonic resolution) and apotheosis (thematic presentation), along with the dramatic meaning (hero’s victory).


Phenomenologically and semiotically, the traditional instability of the 6/4 chord is here overcome by a momentary effect of stability and completion. The aurally perceived resolution at the point of arrival (at V6/4) takes precedence over its subordinate, transitional status within the cadential process. The importance of the arrival 6/4 as an aural event overrides any retrospective syntactic reflection. Hatten finds an example of the arrival 6/4 in the first movement of Beethoven’s Piano Trio Op. 70, No. 1 (Ghost), where the chord appears after an implied German sixth chord (outlined by B-flat and F without D and G-sharp) in m. 6 (Example 1.2.4).\(^8^3\)

According to Hatten, although in the strict sense the structural tonic chord does not occur until m. 11, the moment of the arrival 6/4 chord is heard as the beginning of a new phase, reinforced by the simultaneous thematic entrance. In this way, the cadential 6/4 over its dominant pedal sounds remarkably stable at the very moment of its appearance, despite its structurally subordinate status from the syntactic perspective.

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Michael Klein widens the scope of the arrival 6/4 in harmonic profile, expressive character, and structural significance. For example, the accented “tragic” 6/4 chord with the minor sixth in m. 196 in Chopin, Ballade No. 4—highlighted by hypermetric placement, textural change, phenomenal accent, and an embellished arpeggio according to Klein—is a structural dominant leading to the final cadential resolution (Example 1.2.5). At the same time, the chord functions as narrative peripeteia, in which the trope of “pastoral moving toward transcendence” irrevocably shifts to tragic failure. Klein argues that this agreement between the syntactic

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85 Klein discusses the synergetic effect of the arrival 6/4 and the structural dominant: “when the arrival 6/4 coincides with a structural dominant, as in Chopin’s fourth Ballade and Tchaikovsky’s *Sleeping Beauty*, the effect gains enormous emotional intensity. Leading to the climactic moment may be a growing expanse of register as the outer voices move in contrary motion. A sense of transcendent arrival benefits from increased dissonance in the moments prior to the 6/4, often in the form of diminished-seventh chords or an augmented sixth.” See Klein, *Intertextuality in Western Art Music*, 72.
imperative and narrative turning point in the arrival 6/4 chord enormously amplifies the emotional intensity at its occurrence.\textsuperscript{86} This argument positions the arrival 6/4 as highpoint: when the arrival 6/4 merges narrative meaning, structural significance, and rhetorical emphasis (strong dynamic, highest pitch, and instrumental reinforcement, etc.), the chord obtains extraordinary intensity; at this moment, the arrival 6/4 chord becomes the synergic culmination of Meyer’s syntactic and statistical climaxes.

\textbf{Example 1.2.5. Confluence of the structural dominant and tragic6/4 in m. 196 in Chopin’s Ballade No. 4}

\textsuperscript{86} Klein, \textit{Intertextuality in Western Art Music}, 72.
Peak (Eitan)

Zohar Eitan’s “peak” is the highest melodic pitch in a phrase, formal section, or movement. Whereas the highpoint is defined through manifold musical criteria, Eitan’s peak is solely confined to the melodic highpoint (mostly in the uppermost line), and it is thus a relatively context-free definition compared to other climax-related terms and concepts.

Eitan’s analytical data reveals characteristic features of the highpoints—especially regarding how and when peaks occur—found in works by Haydn, Chopin, and Berg. Noteworthy among the results is the contrast between the highpoints of Haydn and Chopin, and the similarity between those of Chopin and Berg. First, Eitan notes that Haydn’s peaks signal syntactic closure:

While peaks in the Haydn repertory are rarely points of intense climax, they sometimes are part of a conventional sign of approaching harmonic and formal closure. The peak in such situations is not itself a focal point, but a pointer, directing attention toward a structural event.\(^88\)

According to Eitan’s statistical research, Haydn’s peaks signal that cadential events are coming up, but these peaks are not themselves the most compelling sound. Furthermore, the placement of Haydn’s peaks is just as often early in a segment as late. By contrast, Chopin’s melodic peaks generally placed relatively late in a given segment, are emphatic and appear at very intense moments supported by duration, meter, interval size, and dynamics. Eitan concludes that “these features create a characteristically climactic apex, clearly distinct from the attenuated pointer peaks typical of the Haydn repertory.”\(^89\) Haydn’s peaks are more structural in that they are encoded as an indicator of subsequent syntactic events, whereas Chopin’s peaks are in

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\(^{89}\) Eitan, *Highpoints*, 55.
themselves more intense and powerful.

On the other hand, Eitan suggests the strong similarity of highpoints between Chopin and Berg, in that the latter’s peaks function as “points of strong emphasis, culminations of intensifying processes.”

Locally, peaks in Berg are significantly associated with extreme durational emphasis, metric accents, large intervals (in both motion toward and away from peaks), and the culmination of crescendi. Globally, the peak pitch is often unique within the piece or within a large section of it (as are, at times, some of its attributes, such as its duration or the intervals approaching it); it typically appears near the end of a section; and it is frequently prepared by an ascending and progressively stretched series of lesser peaks.90

Of course, it would be a considerable logical leap to argue that these composers fully represent the stylistic attributes of the period to which they belong. Nonetheless, Eitan’s research demonstrates differences in how the composers respectively craft and situate peaks, thereby echoing Meyer’s categorizations of syntactic climaxes for Classical music and statistical climax for Romantic music.91 In Eitan’s analysis, Haydn and Chopin are particularly contrasted in terms of the approach to and placement of the peaks. Meyer’s treatment of climax engenders a similar perspective, but employs traditional musical analysis based on score. In this regard, the two approaches are complementary; they also strengthen generalizations of the stylistic divide between Classical and Romantic music. As a result, a stylistic disparity between periods is doubly confirmed through statistically (Eitan) and traditional music analysis (Meyer), despite the drastically different concepts and defining elements of “peak” (Eitan) and “climax” (Meyer).

90 Eitan, *Highpoints*, 136–37. Eitan finds this similarity between the two composers no less significant, as his statistical finding on “gestural similarity” is more evident in favor of Berg’s affinity for certain idioms of nineteenth-century music.

91 Here, “statistical” means Eitan’s analytical method based on statistics; this term should not be confused with Meyer’ term “statistical” in his discussion of the climax types.
In *Sweet Anticipation*, David Huron discusses climax from both psychological and physiological angles. While the starting points for investigations of climax by other scholars are musical dimensions such as formal structure, harmony, dynamics, theme, pitch, and so on, Huron’s is remarkably different, in that his research of musical climax is not centered on the musical score but focuses on listeners’ physical reactions. He finds that climax is correlated with a high state of emotional arousal, setting off psycho-physiological reactions like anger and fear. Huron says that three principal characteristic features of climaxes are responsible for this reaction: high pitch, loud dynamic level, and relatively dissonant sonorities. In addition, he contends that the use of vibrato, accelerating event sequences, increased volume, upward pitch motion, decreased predictability, and tactical delays also contribute to our perception of climax.

Huron mentions that numerous ethnological studies have shown that high-pitched, loud sounds are associated with alarm. As for harmony, he considers only dissonance for climax. Yet it is noticeable that his use of the term “dissonance” is not exclusively limited to the musical domain; dissonance is defined here as “the phenomenon of sensory dissonance, which is linked to physiological interference along the basilar membrane of the cochlea.” He notes that sensory dissonance may be visual glare, interfering with or disturbing sight; in music, these glaring

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92 David Huron, *Sweet Anticipation* (Cambridge: MIT Press, 2007), 322–26. Huron’s terminological usage follows the colloquial convention that does not distinguish between “climax” and “highpoint,” in which “climax” is generally understood as the moment of maximum intensity.

93 Huron, *Sweet Anticipation*, 324.

94 Huron, *Sweet Anticipation*, 324.
sounds are what music theorists characterize as dissonance.

Huron’s theory of climax excludes consonance or relatively stable sonorities, which can also be heard at moments of climax as the release of tension in a different sense. This exclusion results from his theory being firmly anchored in the particular phenomena in the mind and body, granting these phenomena a premium over written notation and analytical assessment of scores.

**Pacing Scenario (Patty)**

Austin Patty theorizes musical climax based on changes of intensity and pace. His term “climax” indicates the culmination of musical dynamism created by interaction between intensity and pace. The former is articulated by dynamic level and registral motion; the latter is determined by the rate of occurrence for melodies, chords, or other successive events. He categorizes four pacing scenarios according to the coordination of intensity and pace: surge, struggle, tumble, and settle (Table 1.2.2).

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<th>Intensification</th>
<th>Abatement</th>
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<tr>
<td>Acceleration</td>
<td>surge</td>
<td>tumble</td>
</tr>
<tr>
<td>Deceleration</td>
<td>struggle</td>
<td>settle</td>
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**Table 1.2.2. Patty’s four pacing scenarios**

One of Patty’s main arguments is that an increase of intensity is not always derived from a quickening rate of event occurrence. Rather, an intensification phase can be created through both acceleration and deceleration, as can abatement. Indeed, one of his chief contributions to the discourse on climax is the recognition of deceleration as a means to heighten tension. He suggests that “when deceleration delays progress toward a climax, listeners attach special meaning to the intensification that precedes the climax. The deceleration, combined with
intensification, conveys a sense that the music moves with strenuous effort toward the climax.”

This point coincides with Huron’s argument for delay in climax perception; Huron notes that delay actually strengthens dynamic drive in certain circumstances, although it may seem counterintuitive to the climax process. Patty’s reinterpretation of deceleration as a means to increase tension is incorporated in my climax theory presented in Chapter 4.

**Terminological Codification**

In conventional usage, “climax” indicates either a gradual increase of energy or a single moment of highest energy. “Highpoint,” however, rarely carries implications of being exerted over an extended temporal span. As we have seen the colloquial use of “climax” covers both “climax” and “highpoint,” and music scholars often do not distinguish between the two.

However, to avoid terminological and conceptual ambiguity, I hereafter use “climax” to refer to a process in which tension mounts and subsides over time, and “highpoint” for the maximum tension or its release occurring at the vertex of the dynamic trajectory. This distinction is adopted from Agawu’s terminological separation. However, unlike Agawu, my use of the term “climax” includes not only the phase of increasing tension toward highpoint, but also its subsequent decline.

It is important to remember that the culmination of a climax may not involve the highest pitch. I therefore use “highpoint” throughout to indicate the point of highest energy in climax process. This decision is grounded in current terminological conventions in music-theoretical scholarship, in which “highpoint” is more widely circulated than “peak” or “apex,” as used by ________

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Agawu, Eitan, and others. When the highest pitch is relevant, it will be referred to as such.
CHAPTER 2

Climax Parameters in Music

Climax creation involves the workings of many musical parameters, operating either singly or, most often, in combination with one another. This chapter examines the mechanisms of musical parameters generating climax: harmony, pace acceleration, dynamics, melodic contour and pitch, and instrumentation. The first subchapter focuses on the function and effect of individual parameters in the climax processes; the second subchapter addresses parametric interaction, including issues of parametric co-function and hierarchy.

2.1 Individual Parameters: Harmony, Pace Acceleration, Dynamics, Melodic Contour and Pitch, and Instrumentation

Harmony

In its function as a climax parameter, harmony falls into two categories: dissonance and consonance. As Huron notes, maximum harmonic tension or relatively dissonant sonorities—whether in the form of a single moment or prolonged passage—can be perceived as a culmination. However, the release of such tension can also be a culmination, as in Meyer’s syntactic climax.

Figure 2.1 presents Rothfarb’s diagram representing Kurth’s “overarching tonal foundation.” It starts from the tonic–dominant, moves through the dominant/modulations, and

96 All of these parameters are present in the score. Although climax creation can certainly be affected by performers’ interpretations, this dissertation concerns itself solely with those musical features, which contribute to a structural climax building. Climax in performance practice constitutes a vital, albeit separate topic.

97 For Huron’s climax and Meyer’s syntactic climax, see pp. 63–64 (Huron) and 49–52 (Meyer).

returns to the tonic. The coordination between tonal progression and dynamic intensity stands out; according to this diagram, the middle stage reaches the highest dynamic level. Of course, the arc is a simplified and generalized schema, not accounting for subtle attributes and differences in tonal structure and artistic traits. Nonetheless, as Rothfarb points out, this tonal-dynamic trajectory can be applied to many common-practice pieces, in which maximum tension is achieved through tonal instability.

![Figure 2.1. Kurth’s tonal-dynamic arc, after Rothfarb](image)

Examples 2.1A and 2.1B are musical actualizations of the I–V–I progression in Figure 2.1, with slight harmonic elaboration in Example 2.1B. If a chord in the dominant group occurs in a cadential passage, listeners have learned to expect resolution to the tonic harmony.99 An elaboration of this formula is the insertion of a cadential 6/4 chord in the V–I motion; although simple, this change brings far greater harmonic tension and relief.

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99 The move from V to I is the fundamental seed for compositional development and embellishment in many analytical examples in this dissertation.
The examples share overarching harmonic motion (I–V–I), with the third progression in the uppermost melody, and E5 as the highest pitch; there are no changes in dynamics, texture, or instrumentation. In both examples, the highpoint may be placed differently according to the definition of highpoint as either the point of maximum tension or the dissipation of this tension. In Example 2.1A, if the highpoint is defined as the highest harmonic tension, it is the V in m. 2 which temporarily departs from the stable tonic chords. If the highpoint is defined as the release of tension, on the other hand, the climax coincides with the tonic resolution in m. 3, based on the progression from the leading (tendency) tone to the tonic.

Example 2.1B adds a layer of dissonant tension with the double suspension of the sixth and fourth to V for a two-stage resolution.\(^{100}\) First, the double suspension in V6/4 proceeds to V5/3, resolving the most dissonant chord to a less dissonant chord; then V5/3 resolves to I for the leading-tone–to–tonic resolution. In this progression, if highpoint is defined by maximum tension, the V6/4 chord is perceived as such; by the same token, its resolution to I gains

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\(^{100}\) David Huron holds that reading the sixth and fourth as a double suspension “draws attention to the great psychological instability or strong sense of tendency.” See Huron, *Sweet Anticipation* (Cambridge: MIT Press, 2006), 336.
enhanced dynamic drama and psychological impact.\textsuperscript{101}

When highpoint is defined as release of tension, the critical motion always proceeds from instability to stability. Meyer’s syntactic climax (discussed in Chapter 1.2) is not a single moment of highpoint but a harmonic progression that resolves the preceding tonal instability. From a syntactic view, instability accumulates through a series of dominant, augmented and diminished chords, and sequential, parallel and chromatic motions; resolving these through cadential progression brings syntactic closure.

Meyer’s analysis of mm. 98–108 from the first movement of Haydn’s String Quartet Op. 76, No. 4, illustrates how syntactic climax is formed by resolving harmonic instability (Example 2.2). He locates the syntactic climax (mm. 101–108, ii6–V–I) after a circle of fifths and a parallel sixths progression.\textsuperscript{102} According to his analysis, the syntactic climax starts with ii6 in m. 101, followed by a dominant expansion; it is completed by the arrival of the tonic triad in m. 108, the beginning of the recapitulation. In sum, the syntactic climax in this passage shows the process of

\textsuperscript{101} Examples 1A and 1B focus exclusively on the foundational tonic and dominant harmonies. However, in practice, there are many harmonic motions that can generate the tension-resolution paradigm. Moreover, the harmonic hierarchy in creating tension is contextual. Felix Wörner makes this point in his discussion of Kurth’s tonality: “the experience of consonance and/or dissonance is rooted in the subconscious as a relation between tension and relaxation. Since tension and relaxation are not absolute but relative, their degree cannot be determined by abstract ‘theoretical’ concepts, and must ultimately be determined through the totality of the musical features within any individual composition.” See Wörner, “Constructive and Destructive Forces: Ernst Kurth’s Concept of Tonality,” in \textit{Tonality 1900–1950: Concept and Practice}, eds. Ullrich Scheideler and Philip Rupprecht (Stuttgart: Franz Steiner Verlag, 2012), 134–35.

\textsuperscript{102} Leonard Meyer, \textit{Style and Music} (Philadelphia: University of Pennsylvania Press, 1989), 304–5. The development section in a sonata form is characterized by instability. In Op. 76, No. 4, the beginning of the development (mm. 69–107) is marked by chromatic harmonies, chromatically descending bass line, tonicization of local triads, and modulation. This harmonic tumult proceeds to the circle of fifths at m. 93 and cadences in G minor at m. 96. This is followed by parallel sixths leading to V in m. 103, which is the beginning of the retransition. In this regard, Meyer’s syntactic climax is the turning point, signaling a clear reappearance of the correct recapitulatory key, through which the tonal instability is rectified.
resolution from harmonic instability to stability with the tonic key.\textsuperscript{103} \textsuperscript{104}

\textbf{Example 2.2. Syntactic Climax, Haydn’s String Quartet Op. 76, No. 4, first movement, mm. 98–108, after Meyer}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{syntactic_climax.png}
\end{figure}

\textsuperscript{103} Standard cadences based on the (T)-S-D-T progression ending with a PAC acquire dramatic emphasis in Wagner’s music dramas due to their infrequency. For example, at the end of Walther’s Prize Song in Act 3, Scene 5 of \textit{Die Meistersinger von Nürnberg}, the arrival of dominant harmony (P547/3/2, starting with V7) serves as the turning point in a syntactic climax: the resolving cadence appears only at the end of the final version of a song previously heard in fragments. Thus it resolves the previously imperfect patchwork of the song, and concludes—and affirms—Walther’s completion of the artistic challenge through a successful vocal cadence on the tonic note. Although the final resolution is undermined by a deceptive cadence in the orchestra, the dominant prolongation assumes the critical function of clarifying and concluding the tonal syntax. Taruskin points out that the paucity of standard cadential progression in Wagner heightens its significance both qualitatively and quantitatively. Wagner intensifies the dominant function within a cadential context by rarefying its appearance; the infrequency of the familiar cadential format therefore carries more ontological weight within and beyond the syntactic context. In this regard, Wagner maximizes the qualitative value of the normal cadential idiom through minimizing its quantitative value. See Richard Taruskin, \textit{Music in the Nineteenth Century: The Oxford History of Western Music} (New York: Oxford University Press, 2009), 545.

\textsuperscript{104} On the other hand, the statistical climax parameters that Meyer does not mention in his analysis actually decrease the physical intensity of the passage: \textit{poco a poco decrescendo} (m. 98, before the syntactic climax) and \textit{pp} (m. 105) reduce the dynamics; the melodic contour descends; the texture thins; and the rhythm deactivates.
Pace Acceleration

Pace is another important parameter for creating climax. Especially in opera, pace directly or indirectly can evoke a dramatic ambience and reflect emotional dynamics. For example, Verdi, in response to an inquiry from the conductor preparing for the upcoming premiere of *Ernani* in Vienna in 1844, stated that “if you simply pay attention to the dramatic situation and the text, it will be difficult to mistake the tempo.” \(^{105}\) Pace acceleration is critical in building climax. Its operation immediately increases mobility and is directly perceivable to listeners. Pace acceleration can be realized as quickening phrase or harmonic rhythm, melodic diminution, or simply *accelerando*. In operatic contexts, tempo acceleration conveys extra-musical significance or mood as well.

There are three ways to accelerate tempo: unit reduction, tempo markings, and metronome indications. Unit reduction is assessed by tracking the changing size of a unit. In this sense, the analytical result of unit reduction can be treated statistically. Descriptive tempo markings are subjective—descriptive, rather than prescriptive—since their realization depends on the performer’s artistic interpretation; the diverse ways of executing a descriptive phrase cannot be statistically assessed. Metronome indications by fixed numerical values are measurable and statistical. Technically, there is no room for the performer to intervene in a metronomically designated tempo, although timing is inevitably malleable in practice. The assigned metronome tempos can be compared statistically.

*Unit reduction.* Acceleration occurs when an established unit—a harmonic pattern,

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theme, motive, or melodic figure—is repeated within gradually diminishing time spans, due to unit diminution, truncation, or compression; this normally happens in a steady and gradual manner.

In Example 2.3, a passage from the cadential area at the end of Götterdämmerung, Act 2, unit reduction occurs through diminution of the Gibichung’s Horn-Call motive over a simple I–V7 pattern. As the motive undergoes truncation, the harmonic rhythm gradually accelerates in mm. 1–4: in mm. 1–2, the harmony changes every two beats, moving from I to V7 in each measure; this time interval is halved in m. 3, as the harmony changes each beat; in m. 4, there are two harmonies per beat before the culmination of the accelerating process at the tonic resolution in m. 5.

![Example 2.3. Götterdämmerung, end of Act 2 (P230/4–5)](image)

A more complicated case is a passage from Tristan und Isolde, at the end of Act 2, Scene 1 (P129/4/2–131/2/4, before the Act 2 love duet), which involves the gradual diminution of two motivic units at once (Example 2.4): the “Isolde’s Impatience” and “Summons” motives. Table
2.1 illustrates the pace acceleration via reduction of the two motivic units.

Example 2.4. *Tristan und Isolde*, Act 2, Scene 1, P129/4/2–131/2/4
Motivic unit | Isolde’s Impatience | Summons
---|---|---
mm. 1–12 | four measures | n/a
mm. 13–20 | two measures | two measures
mm. 21–24 | | one measure
mm. 25–28 | one measure | one measure
mm. 29–32 | half measure |

Table 2.1. Pace of unit reduction, *Tristan und Isolde*, Act 2, Scene 1, P129/4/2–131/2/4

Both motivic units are halved in each reduction. The “Isolde’s Impatience” motive appears in the cello, as a four-measure unit in mm. 1–12, a two-measure unit in mm. 13–24, and a one-measure unit in mm. 25–32. The “Summons” motive, in the woodwinds and headed by a pickup, starts as a two-measure unit in mm. 21–24, a one-measure unit in mm. 25–28, and finally a half-measure unit in mm. 29–32. Within the musico-dramatic perspective, the gradual unit diminution matches Isolde’s psychological state and physical gestures: Isolde, eager to meet with Tristan, waves a handkerchief to let him know that it is safe to make an appearance; her waving gradually quickens to a gesture of violent impatience.

*Descriptive tempo markings.* These can range from a single word (e.g., *adagio*) to the more detailed descriptions normally found in Wagner. In general, descriptive phrases explicitly convey the dramatic climate or emotional dynamic. For example, in the Act 1 duet from *Die Walküre*, the tempo accelerates from *mässig schnell* (P72/4), through *sehr belebt* (P75/3), to *immer schneller* (P76/2), mirroring the development of the irresistible attraction between Siegmund and Sieglinde, and their eventual flight together.\(^{106}\) The analogous dramatic situation

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\(^{106}\) David Fallows cites a paragraph from Wagner’s *Über das Dirigieren* to explain why exact metronome values are absent in Wagner’s scores: “to speak from my very own experience, I should say that I filled my earlier publicly performed operas with really verbose tempo indications and fixed them precisely and infallibly (I thought) by adding metronome numbers. Consequently when I heard a stupid tempo in a performance, of my *Tannhäuser* for example, a conductor would protect himself against my recriminations by saying that he had followed my metronome indications most conscientiously. I understood from this how unsure mathematics must be in relation to music and thereafter not only omitted metronome numbers but also contented myself giving the main tempos in very
of the *Tristan* love duet in Act 2 is likewise presented in the tempo quickening from *lebhaft, mit Steigerung* (P198/1), through *sehr lebhaft und schnell* (P198/3), *sehr drängend* (P206/1/4), *immer etwas drängend* (P207/1), *noch drängender* (P208/1), to *sehr schnell* (P209/1).

The “Annunciation of Death” in Act 2 of *Die Walküre* moves from *sehr feierlich und gemessen* at the beginning of the duet (P152/4), to *etwas bewegt, doch nicht zu schnell* (P162/4), to *sehr lebhaft* (P169/2/3). The tempo undergoes gradual acceleration during the psychological tug–of–war conflict between Siegmund and Brünnhilde; the tempo acceleration keeps pace as Siegmund’s doom gives way to Brünnhilde’s change of heart. In Hans Sach’s “Wahn Monologue” from *Die Meistersinger von Nürnberg*, Act 3, Scene 1, the tempo starts *ruhig wie vorher* (P368/2/3), moves to *immer etwas belebend* (P369/4/1), and dashes on via *immer lebhafter* (P370/1/3) through to the breaking point (P371/1/3); as he broods over the madness and blindness of human nature, the tempo seems to spiral out of control into chaos and violence. In these Wagner examples, the tempo does not change evenly or regularly, but according to the dramatic demands; descriptive tempo markings create this fluidity most efficiently.

**Metronome indications.** Pace acceleration is most objectively indicated through numerical values. Metronome indications are often found in Verdi and Puccini’s operas. Notably, these are frequently accompanied by descriptive phrases, since pace acceleration is not merely a technical modification of tempo. In the following examples, the metronome markings

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108 This flexibility is important to Wagner’s *Art of Transition*, in which uninterrupted progression without sectional or harmonic demarcation comes to the fore.
work together with the descriptive terms to create pace acceleration.

In “Les tringles des sistres tintaient” from Carmen, Bizet uses both metronome indications and Italian terms. Although the aria is strophic, tempo manipulation increases the mood of urgency while other parameters remain stable. The aria starts andantino, proceeding to presto as Carmen and the other dancers’ choreography becomes frenzied. Where Carmen’s vocal line momentarily slows down at the end of each stanza for the tantalizing cadential resolution, the following refrain always returns to a progressively accelerated pace. Table 2.2 lays out the process of acceleration according to descriptive indications and metronome markings.

<table>
<thead>
<tr>
<th>Sec. division</th>
<th>Page number</th>
<th>Italian tempo indication at refrain</th>
<th>Metronome indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prelude</td>
<td>113–115/1</td>
<td>Andantino</td>
<td>$\downarrow = 100$</td>
</tr>
<tr>
<td>Stanza 1</td>
<td>S: 115/2–116/2</td>
<td>Bene ritmato -&gt; molto ritardando (end)</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>R: 116/3–117/3</td>
<td>A tempo (beginning)</td>
<td>$\downarrow = 108$</td>
</tr>
<tr>
<td>Stanza 2</td>
<td>S: 117/4–119/2/1</td>
<td>Molto rallentando (end)</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>R: 119/2/2–120/3/2</td>
<td>A tempo animato (beginning)</td>
<td>$\downarrow = 126$</td>
</tr>
<tr>
<td>Stanza 3</td>
<td>S: 120/3/3–121</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>R: 122–123/3/1</td>
<td>Più mosso -&gt; sempre animando e crescendo</td>
<td>$\downarrow = 138$</td>
</tr>
<tr>
<td>Postlude</td>
<td>123/3/2–124</td>
<td>Presto -&gt; tutta forza</td>
<td>$\downarrow = 152$</td>
</tr>
</tbody>
</table>

Table 2.2. Tempo in “Les tringles des sistres tintaient” from Bizet’s Carmen, Act 2  
S: Carmen solo; R: ensemble and chorus refrain (Schirmer, vocal score)

The predictability and regularity of the song’s strophic form is thus overborne by end-accented velocity that is most obvious in the increasing metronome values. The music starts in a fairly moderate tempo, then accelerates, then ends in a frantic gallop. This progressive acceleration makes the song sound through-composed despite its inherent repetitiveness.109

109 Along with the tempo indications, the text of the song describes a physical and sensual escalation, manifested
The Act 4 duet between the Grand Inquisitor and King Philippe II in Verdi’s *Don Carlos*—indicated as a “scena” by the composer—offers another example of tempo acceleration through the cooperation of descriptive markings and numeric designations. Table 2.3 shows the metronome values and descriptive indications in conjunction with the dramatic context.

As in the previous examples, the dramatic content drives the changing tempos. However, unlike the Carmen example, the pace in this scene does not change in a unidirectional manner, reflecting the fact that the scene is fluidly organized around the rise and fall of dramatic tension, the rising conflict and its momentary subsidence between the two authorities. Pace acceleration is most active from the beginning to Section 2, Subsection 4. Here, the two characters address the most sensitive and controversial political matters, centering on their conflict over Rodrigue. The tempo acceleration escalates tension, reflecting the Inquisitor’s increasing antagonism towards Rodrigue, and then towards the King. As the Grand Inquisitor’s attitude changes from request to threat and intimidation, the tempo moves from Tempo I (♩=56), to *allegro agitato mosso* (♩=132), to *un poco più animato* (♩=152). This elastic handling of the tempo contributes to a musical recreation of psychological immediacy.

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visually in Carmen and her compatriots’ dance. Stanza 1 sets the scene, introducing the characters and instruments (sistrums and tambourines). Stanza 2 intensifies the atmosphere through more agitated dancing motion and reiteration of the word “montait” (ascending) multiple times. The ongoing dynamism is made explicit by narrating a move from “indécise et timide” (unsure and hesitating) to “plus vive ensuite et plus rapide” (livelier and faster). This steamy mood culminates in Stanza 3, as the dancing becomes more frenzied, from “ardentes, folles, enfiévrées” (ardent, crazy, and fevered) to “tourbillon” (whirlwind), carrying away the characters in Dionysian, vertiginous intoxication.

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110 Verdi is one of the first Italian composers to use metronome indications in his scores. *Attila* is the first Verdi opera in which these appear, but their use was not consistent in his subsequent operas. See Marvin, “Aspects of Tempo,” 397–98.
### Table 2.3. Tempo in the duet between the Grand Inquisitor and King Philippe II from Verdi’s *Don Carlos*, Act 4 (Ricordi, vocal score)

<table>
<thead>
<tr>
<th>Formal division</th>
<th>Further division of subsections</th>
<th>Tempo</th>
<th>Dramatic context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1 (P252–255)</td>
<td>n/a</td>
<td><em>largo</em>, $\text{\textdollar}=56$</td>
<td>Philippe discusses Carlo’s rebellion and ensuing punishment with the Inquisitor.</td>
</tr>
<tr>
<td>Section 2 (P256–262/4/2)</td>
<td>Subsection 1 (P256–257)</td>
<td><em>Allegro moderato</em>, $\text{\textdollar}=96$</td>
<td>The Inquisitor brings up Rodrigue’s offenses.</td>
</tr>
<tr>
<td></td>
<td>Subsection 2 (P258)</td>
<td>Tempo 1</td>
<td>Philippe regards Rodrigue as his confidant; the Inquisitor questions why Philippe is King if he has an equal.</td>
</tr>
<tr>
<td></td>
<td>Subsection 3 (P259–260/2/4; letter E)</td>
<td><em>Allegro agitato mosso</em>, $\text{\textdollar}=132$</td>
<td>The Inquisitor requests that Rodrigue be handed over to the church.</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td><em>Un poco più ritenuto</em>, $\text{\textdollar}=120$ (P261/4–262/4/2)</td>
<td>The Inquisitor continues to criticize Philippe by appealing to his politically superior power.</td>
</tr>
<tr>
<td>Section 3 (P262/4/3–267)</td>
<td>n/a</td>
<td>Tempo 1</td>
<td>Philippe wishes for reconciliation; the Inquisitor exits; Philippe regrets that the king must concede to the church.</td>
</tr>
</tbody>
</table>

### Dynamics

Dynamic increase is another critical parameter of climax. A climax rendered by means of dynamic augmentation is indeed so straightforward and ubiquitous that it would seem unnecessary to provide specific examples. Accordingly, many scholars, such as Meyer and Huron, count loud sound as a cardinal condition of climax.\(^{111}\) Yet Huron distinguishes between dynamics and volume, referring to Stanley Smith Stevens. As he notes, “volume” means “the subjective sense of auditory size, mass, and spaciousness. When the volume is increased, the sound is not simply louder, it is also *bigger* in some sense.”\(^{112}\) In other words, an increase in

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\(^{111}\) In Meyer’s distinction, syntactic climax is not always accompanied by strong dynamics. In contrast, amplification of dynamics is the core element of statistical climax.

\(^{112}\) Huron, *Sweet Anticipation*, 323. See also discussion of volume in Stevens, *Hearing: Its Psychology and*
volume invokes spatial expansion as part of its total effect. Huron states that “increasing the number of singers in a chorus would increase the subjective sense of volume, not just the loudness […] often the instrumental or vocal resources are augmented. The sound appears bigger.” A volume increase can thus also be a synesthetic experience (aural and visual), if it involves augmentation of performing forces; it is not difficult to picture the physical enlargement of sound mass when hearing an increase in textural density due to the addition of instruments or singers.

An example of multi-dimensional workings—aural, visual, and spatial—is found in both of the anvil passages in Wagner’s Rheingold, at the end of Scenes 2 and 3. The anvil ensemble at the end of Scene 2 is heard when Wotan and Loge descend to Nibelheim to visit a smithy run by the dwarves (Example 2.5). The ensemble consists of three groups according to the size of anvils: nine small, six big, and three very big anvils. Table 2.4 shows the dynamics of the passage, spanning 28 measures.

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Example 2.5. Anvil ensemble from *Das Rheingold*, at the end of Scene 2 (Dover, P157)
Example 2.5. Anvil ensemble from *Das Rheingold*, at the end of Scene 2 (P158)
Example 2.5. Anvil ensemble from *Das Rheingold*, at the end of Scene 2 (P159)
Table 2.4. Dynamics in the anvil ensemble

While the pitch is obstinately fixed on F, the anvil ensemble conjures up Wotan and Loge’s distance from the smithy primarily by exploiting dynamics and volume. First, mm. 1–12 follow their gradual approach to the smithy, realized through dynamic crescendo from \( p \) to \( f \). The dynamic escalation reaches a highpoint of \( ff \) (mm. 13–16), then gradually drops to \( pp \) through diminuendo and immer schwächer. Second, rhythmic manipulation increases volume. In each anvil group, the three rhythmic cells are played by the three subgroups in succession: first subgroup on beat 1, second subgroup on beat 2, and third subgroup on beat 3 in 3/4 meter. During the highpoint, each subgroup plays the same rhythmic unit simultaneously; this rhythmic alignment creates an effect equivalent to an augmentation of performing forces, suddenly tripling the volume. Thus, listeners hear a bigger sound during the highpoint, as if passing by the center of the smithy.

Melodic Contour and Pitch

The process of climax reaching a highpoint is frequently associated with an ascending melodic contour and the arrival of the highest pitch. Although the rising process and resulting culmination are two different concepts in a strict sense, they are causally related; the final destination of an ascending motion is the highest note before a change of melodic direction.

The tendency to place high notes at a culmination is especially relevant to vocal music, as the ability of a virtuosic singer to successfully perform particular high notes is itself a moment of
highlight—for instance, when the Queen of the Night approaches the F6 in “Der Hölle Rache kocht in meinem Herzen” (Mozart, Die Zauberflöte). Also, vocal contests between singers aiming for successively higher notes serve a similar purpose. Agawu observes the special significance of high notes in vocal genres:

They [high notes] abound in opera arias; as high notes, they are sites of display, channels for the foregrounding of the very act of performing. As such, they are thrilling to audiences, whose consumption of these arias may owe not a little to the anticipated pleasure of experiencing these moments in different voices, so to speak. The lied singer encounters them frequently, too, often in a more intimate setting in which they are negotiated with nuance.113

Ascent is not limited to consistently unidirectional melodic lines. Sequential motion can also produce a large-scale ascent; each sequential unit accommodates melodic fluctuation, and the motion from one unit to the next ultimately creates an ascending contour. Occasionally, the unit may be slightly varied—through intervallic change (melodic modification), melodic embellishment, etc.—near the highpoint for dramatic effect.

A nine-measure instrumental passage from Die Walküre, Act 1, Scene 1 based on the Siegmund motive uses ascending sequential melody and dynamic marking to build climax over constant texture and instrumental parameters (Example 2.6). Played by solo cello, this passage consists of three phrase units, each shaped in a three-measure inverted arch. Unit 1 descends by step from C4 to F-sharp3 (mm. 1–2/2, diminished fifth), then returns to C4 through two ascending thirds (mm. 2/2–3). Unit 2 follows the same melodic motion, down from E-flat4 to A3 (mm. 4–5/2, diminished fifth again) and back to the initial pitch by two thirds (5/2–6). The boundary between Units 1 and 2 is delineated by a rest (m. 3/3). Unit 3 begins on a slur with the

final note of Unit 2 and descends by step from G4 to C4 (mm. 7–8/2); it subsequently ascends by three thirds (mm. 8/2–9), reaching a B-flat4 highpoint (surpassing the expected G4 in m. 9). Due to the added leap (G4 to B-flat4), Unit 3 exceeds Units 1 and 2 in intervallic size while also reaching the melodic peak. This highpoint is also reinforced by dynamic parameters: during the climax process, \( p \) is maintained until a crescendo dynamically emphasizing the highpoint.\(^{114}\) Therefore, the melodic and dynamic parameters take the main role in the drive to the highpoint.

Example 2.6. An instrumental passage based on the Siegmund motive from Die Walküre, Act 1, Scene 1, P9/1–9/2

An extreme low pitch—primarily created by unidirectional descending motion—may also be a highpoint, insofar as its kinetic movement progresses linearly toward the goal. Most scholars do not address the low note as highpoint. An exceptional case is Meyer, who points out that the lowest pitch can be a peak, if it comes across with the highest tension or extreme

\(^{114}\) A crescendo appears in m. 6. However, it is quelled by a sudden \( p \) on the downbeat of m. 7.
intensity. Although climaxes with ascending motion vastly outnumber those with descending motion, the essential concern in increasing intensity is unidirectional consistency of melodic movement.

Example 2.7 from Rachmaninoff’s Etude Opus 33, No. 8 in G minor illustrates a musical climax capped by a low-note highpoint. The descending motion begins at m. 26; the first note of each beat is a step lower and accented, which establishes a regular pulse (except for beats 2 and 4 of m. 28, which articulate two eighth notes). The initial G minor is gradually diluted by stepwise chromatic descent from m. 29, draining the gravitational pull of the initial key; due to this weakened tonal center, the consistently descending melody emerges as the most critical parameter of driving force toward an unpredictable endpoint. Finally, the emphatic C-sharp in ff at the end of a crescendo, on the downbeat of m. 30 appears as a melodic culmination; the following arpeggiation of C#-minor triad soars toward E6 like a reverberation.

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115 While measuring parameters of statistical climax such as “most frequent rate of attack, high acoustic tension (discord), loudest dynamic, most forceful sonorities, and densest texture,” Meyer puts “lowest” in parentheses, next to “highest” pitches. See Meyer, Style and Music, 306.

116 Lane Cooper uses the term declension for the culmination at the lowest point, in the tradition of rhetoric and etymology. He mentions that “the Greek word climax, which stands for the rhetorical figure, means a ladder; and we thereby indicate, not the topmost rung alone, but all the rungs, including the lowest. When the orator or poet reaches the top of his flight, he is said to cap the climax. When we reverse the process, and run down the scale, the figure may be called a declension.” See Cooper’s article “The Climax,” The Sewanee Review 32/1 (1924), 34.

117 It is necessary to distinguish the musical contexts and perceptual effects of the driving forces for different linear motions. If a linear motion is in a diatonic context, the driving force of the linear motion originates in the established tonal idiom. In this case, listeners feel a prediction-based expectation for the following chord progression and cadence, based on their familiarity with tonal harmonic motion and voice leading of harmony. However, when motion is chromatic, its momentum derives from inertia (in physics, lack of change in motion), i.e. the consistency—due to the absence of external force—of that momentarily moving state. When there is no expectation-building tonal context affecting listeners’ perception of the motion, their focus shifts to the kinetic motion itself; consequently, listeners’ curiosity rather than prediction comes to the fore, regarding where and when the motion will end.

118 It can be argued that the E6 at m. 30/3 is the highpoint due to being the highest pitch in the passage. However, the consistency of the pulse, emphasis by accent on each beat, and ritardando at m. 29/3 make the C#-chord on the downbeat of m. 30 more convincingly climatic.
Example 2.7. Rachmaninoff’s Etude Op. 33–8 in G minor, mm. 22–30
As Kurth noted that instrumentation can play an important role in creating climax by reinforcing the sound, the gradual enlargement of performing forces raises dynamics and volume (see subchapter 4 in Chapter 1.1); simmering tremolos or rapid triplet figures in the strings produce kinetic fervency and excitement; brass broadens the scale of the sound and often carries topical meaning. Strong or heavy instrumentation is most likely to be a necessary means to realize apotheosis, breakthrough, groundswell, and statistical climax.
Apart from the general function of increasing sonic intensity, Kurth notes the significance of instrumentation in relation to climax, particularly the role of wind and brass instruments as carriers of thematic or motivic statements at the point of culmination in Bruckner’s symphonies. This function can also be found in climactic passages of Wagner’s and Strauss’ operas. For example, the brass plays a major role for leitmotivic articulation in a passage near and at the highpoint in the prelude to Tristan (Example 2.8). In this area, the kinetic propulsion is particularly strong from m. 77, building momentum through ascending melodic contour, growing dynamics, and pace acceleration. The use of the brass further strengthens the sound near the highpoint: in mm. 81–82, a trumpet in F and three trombones play the Tristan chord on the downbeat of each measure; furthermore, the trumpet plays an ascending chromatic line (Ab–Bb–B♭–C), an altered version of the Desire motive (G♯–A–A♯–B) in the opening of the prelude. When the highpoint arrives at m. 83 in the form of the Tristan chord again, all the instruments, including the newly paired oboe, clarinet in A, and trumpet, are summoned to render the chord with massive force. The brass instruments here are so aurally conspicuous that they become a parameter distinguishing between the Tristan chords heard before and during the climax process.
Example 2.8. *Tristan und Isolde*, Prelude, mm. 76–83 (Dover)
Example 2.8. Tristan und Isolde, Prelude mm. 76–83 (cont.)
Another example is the final climax of *Salome*. The Love theme is heard many times throughout the opera, and most dauntingly as the apotheosis in Salome’s final monologue (Example 2.9). At R335, the theme is stated in a lyrical and diatonic context by clarinet in A, trumpet in E, harp, and strings. The final presentation, three measures before R361, is a tour de force execution by the full orchestra, with the addition of more wood and brass instruments (including the oboe, clarinet, horn, and trumpet) to the strings in the uppermost melody, and the performance indication “very broadly” (*sehr breit*).\(^{119}\) Compared to the previous iterations in various diatonic contexts, the final presentation is harmonically distorted due to the corruption of the middle chord in the I–IV–I frame; here, the main melody and harmonic support are conflated into a massively dissonant sound. This is realized by all the instruments for maximum volume and dynamic reinforced by *sfz*.

\[\begin{array}{cccc}
\text{C#} & \text{I} & (\text{IV}) & \text{I} \\
\end{array}\]

**Example 2.9. The final statement of Salome’s Love theme: distorted I–IV–I progression**

\(^{119}\) Craig Ayrey interprets the chord as a combination of F-sharp major (melody part) and AMm7 (harmonic support). See “Salome’s Final Monologue,” in *Richard Strauss: Salome*, ed. Derrick Puffett (Cambridge: Cambridge University Press, 1989), 125-26. Blair Johnston proposes an alternate reading. He points out that, although the melody implies the diatonic I–IV–I progression in C-sharp major, the middle chord is corrupted by the addition of G and A, and thus is charged with the highest harmonic tension. He defines this chord as hyperdissonance, “a higher-order negative engagement in the melodic/harmonic domain—a type of compound pitch organization that involves misharmonization of a conventional basis or idiom for tense effect rather than re-harmonization for the sake of new color or innovative chord progression.” He interprets this extreme degree of dissonance as symbol of the heroine’s distorted character and inner world. Johnston’s “hyperdissonance” may thus be seen as an extended example of dissonance as a highpoint criteria and its expanded semiotic application. See Johnston, “Salome’s Grotesque Climax and Its Implications,” *Music Theory Spectrum* 36/1 (2014), 34–57.
2.2 Parametric Interaction

Example 2.10 is from the Act 2 prelude of *Die Walküre* (P80/1–80/3). In this passage (in 9/8 meter), the harmonic progression and melodic/rhythmic manipulation work together to create the climax. On the other hand, the dynamic level does not change and the melodic contour is non-directional. The chord progression, although far from a standard V–I format, moves from tension to resolution via the voice-leading rules of nineteenth-century chromatic harmony.\(^{120}\)

First, harmonic motion produces tension. The two-measure harmonic unit is stated twice in mm. 1–4 and truncated in mm. 5–8. The first unit (mm. 1–2) moves from a G-augmented triad to the first inversion of an E-minor triad; the second unit (mm. 3–4) starts with the same G-augmented triad but resolves to a C-major triad in second inversion. In m. 5, the G-augmented triad is respelled as the first inversion of an Eb-augmented triad; this chord is sustained through m. 8. Any sense of harmonic predictability is greatly confused by such chromaticism, as the chord may resolve to E minor, G major, G-sharp minor, B major, C minor, and E-flat major. As a result, while the harmonic parameter seems to be active only in the first half of the passage, the harmonic delay itself increases expectation for resolution.

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\(^{120}\) There are six options for resolving augmented triads, by either raising or lowering one of the three constituent pitches. This is theorized by Carl Friedrich Weitzmann in his treatise *Der übermäßige Dreiklang*, especially in Chapter VII, “Extensive Relations of the Augmented Triad” (Ausgebreitet Verwandtschaft des übermäßigen Dreiklanges). See Weitzmann, *Der übermäßige Dreiklang* (Berlin: Trautwein, 1853), 17–18. The treatise was translated into English by Janna K. Saslaw, “Two Monographs by Carl Friedrich Weitzmann. I: The Augmented Triad (1853),” *Theory and Practice* 29 (2004), 133–228.
Second, the forward drive is strengthened by manipulating a melodic unit played by the flute, oboe, clarinet, and violin; initiated by an anacrusis (two sixteenth notes, except in the first unit), the unit is first stated in mm. 1–2, and repeated in mm. 3–4. The unit is gradually truncated in several appearances in mm. 5–8, while the Eb+6 chord is sustained. This process of gradual truncation of the melodic unit creates explicit pace acceleration: mm. 1–6 consists of three units, each of which spans about two measures; the following unit spans two beats. The unit is further reduced to one beat, and the last upbeat at the end of m. 8 is attached to the downbeat of m. 9, where the leading-tone B is resolved to C in the C-minor triad.

Example 2.11 from the overture to *Il barbiere di Siviglia* (P11/2/3–14/1/2) is a typical
instance of the Rossini crescendo, a dynamic swell that various musical parameters build up collaboratively. Table 2.5 tracks the process of climax building through individual parameters. The music increases in intensity over 28 measures through dynamic, registral, and instrumental changes. This rising intensity could fall under the umbrella of crescendo in a broad sense; certainly, the dynamic parameter is conspicuous, starting at p and developing to ff. Beyond clear dynamics, the ever-increasing volume is made possible through Rossini’s harmonization of the main melody, which gradually expands from a single line to a thick texture of thirds, sixths, and octave doublings in Section 1 (mm. 1–12). During this section, the pitch rises and the texture thickens at every phrase repetition with new descant harmonies, while the performing forces multiply from a group of violin, clarinet, and bassoon to full orchestra.
Example 2.11. A Rossini crescendo from the overture to *Il barbiere di Siviglia* (Dover, P11)
Example 2.11. A Rossini crescendo from the overture to Il barbiere di Siviglia (P12)
Example 2.11. A Rossini crescendo from the overture to Il barbiere di Siviglia (P13)
Example 2.11. A Rossini crescendo from the overture to *Il barbiere di Siviglia* (P14)
Table 2.5. Structure of the Rossini crescendo from the overture to Il barbiere di Siviglia\textsuperscript{121}

The acceleration of harmonic change provides further intensification, although the harmonic profile is quite simple, basically successive occurrences of the I–V7 motion.

Throughout the passage, the pace accelerates from one chord to two chords, to four chords per measure, with a one-time interruption of the process in Section 3: Section 1 (mm. 1–12) consists of three four-measure units, with each unit accommodating I(6/4)–V7–I(6/4)–V7 (one chord per

\textsuperscript{121} Abbreviations for instruments used in this dissertation are as follows: B.Cl (bass clarinet), Bd (bass drum), Bn (bassoon), B.Tba (bass tuba), B.Tpt (bass trumpet), B.Trbn (bass trombone), B.T.Trbn (bass tenor trombone), Cl (clarinet), Db (double bass), E.Hn (English horn), Fl (flute), Ob (oboe), Picc (piccolo), Timp (timpani), Tpt (trumpet), Trbn (trombone), Va (viola), Vc (cello), Vn (violin)
measure). This shrinks to one measure in Section 2 (mm. 13–16), as the material from mm. 11–12 is compressed to a one-measure unit over I(6/4)–V7 (two chords per measure). The unit returns to four-measure phrases in Section 3 (mm. 17–24, two units). Section 4 (mm. 25–28) is an aggregate of four one-measure units, the first three with the fastest rate of harmonic change; in mm. 25–27, four chords constitute each unit (I–IV–V6/4–V5/3), before the tonic resolution at m. 28.

Instrumentation greatly increases the drama as well. Initially, the melody is carried by oboe, clarinet, bassoon, and violin; piccolo and flute occasionally pipe in during the second subsection of Section 1, but fully participate in the third subsection. Horn and trombones join the orchestral forces in Section 2, as do a trombone in A and bass drum in Section 3.

Although its name would seem to indicate otherwise, the Rossini crescendo is thus far more than just a dynamic increase. It is a collective task in which multiple climax parameters are involved. Hence, the device should be understood as a sophisticated process of intensification requiring the coordination of dynamics, register, instrumentation, and harmonic rhythm.

The prelude to Das Rheingold likewise involves the concurrent operation of phrase structure, rhythmic diminution, registral ascent, instrumental augmentation, and dynamic increase, with a process of gradual intensification similar to the Rossini example. However, the most remarkable difference is that the prelude creates a climax in the absence of harmonic change; the tonic Eb-major harmony provides a fixed tonal background for the climax process.122

122 Wagner wrote “ruhig heitere Bewegung” (calmly cheerful movement) at the beginning of the prelude but did not notate any tempo signs. The absence of tempo markings in the prelude is notable, as a strong sense of accelerating tempo is clearly perceivable. In fact, this effect is created through rhythmic diminution, melodic elaboration via passing tones and arpeggiation, and regularization of the phrase. Any real accelerando is due to performance interpretation, not score markings.
Alfred Lorenz analyzes the prelude as a variation form, consisting of a theme and four variations plus introduction and coda.\textsuperscript{123} Table 2.6 reconstructs his analysis.\textsuperscript{124}

<table>
<thead>
<tr>
<th>Formal division</th>
<th>Measures (size)</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>mm. 1–16 (16)</td>
<td>Pedal point on Eb alone</td>
</tr>
<tr>
<td>Theme</td>
<td>mm. 17–48 (32)</td>
<td>Emergence of the primordial motive, which develops through canonic texture into the primary theme</td>
</tr>
<tr>
<td>Variation 1</td>
<td>mm. 49–80 (32)</td>
<td>Addition of passing tones to the motive, and eighths notes in the figure;\textsuperscript{125} the primary motive builds a rising phrase carried by the horns (and maintained throughout the prelude)</td>
</tr>
<tr>
<td>Variation 2</td>
<td>mm. 81–96 (16)</td>
<td>Acceleration of the motive and figure</td>
</tr>
<tr>
<td>Variation 3</td>
<td>mm. 97–112 (16)</td>
<td>Additional “sound filling” (\textit{Klangfülle}) and intensification of tone color</td>
</tr>
<tr>
<td>Variation 4</td>
<td>mm.113–128 (16)</td>
<td>Further intensification of inner filling and tone color; trumpet plays the rhythm of the primary theme</td>
</tr>
<tr>
<td>Coda</td>
<td>mm.129–136 (8)</td>
<td>Fragmentation of the motive and addition of running notes to the figure</td>
</tr>
</tbody>
</table>

\textbf{Table 2.6. Alfred Lorenz’s Analysis of the prelude to \textit{Das Rheingold}}

Lorenz’s analysis based on variation form has little to do with a static or mechanical formal scheme, but embraces a certain degree of mobility and accumulative action. My analysis is in a similar vein, although I do not posit a variation form but focus on the process of climax building. My only divergence from Lorenz’s formal division regards his Variation 1: I divide this into two sections (Part 2 in my analysis) because I consider the second (a repetition) its own structural entity.

\textsuperscript{123} Hugo Leichtentritt’s formal analysis of the \textit{Rheingold} prelude shows the same variation form as Lorenz’s. See Leichtentritt, \textit{Musical Form} (Cambridge: Harvard University Press, 1951), 169.

\textsuperscript{124} Alfred Lorenz, \textit{Das Geheimnis der Form, Vol. 1 Der Ring des Nibelungen} (Berlin, 1924), 126. Features in Table 2.6 are my translation and summary of Lorenz’s analytical points regarding climax building.

\textsuperscript{125} In Lorenz’s terminological use, “figure” is understood to mean motivic realization via rhythm and melody.
Table 2.7 is my analysis of the prelude as a three-part cumulative or additive form. This analysis complements Lorenz’s by tracking the workings of climax parameters from section to section. Further segmentation into subsections is based on diminution of rhythm and phrase, instrumental augmentation, ascending register, and rising dynamics.

The prelude can also be appraised with reference to Meyer’s theory of syntactic and statistical climaxes, despite the lack of harmonic motion and variety. The steady transformation from murky, amorphous sonority to clear triadic sound with melodic and rhythmic vibrancy exemplifies syntactic climax, since the whole process of climax building illustrates a rhythmic and melodic shift from the unclear and unstable to the clear and stable; the rhythm, phrase structure, motivic profile, and harmony of the prelude become more regularized and definite in the course of the musical flow. Meyer’s statistical parameters play a significant role as well: textural thickening, registral ascent, instrumental augmentation, and dynamic reinforcement gradually strengthen the physical intensity.

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126 Peter Burkholder identified some of Charles Ives’s (non-operatic) pieces as demonstrating “cumulative form,” which he defines as: “a thematic, non-repetitive form in which the principal theme is presented, not at the beginning as in traditional forms, but near the end, and is preceded, not followed, by its development. In cumulative form, there is no repetition of long segments of music, as there is in ternary, sonata, rondo, and many other forms, but rather a continual development that leads up to the definitive statement of the theme.” Peter Burkholder, All Made of Tunes (New Haven: Yale University Press, 2004), 137.

127 Fallows points out the unreliability of tempo and expression marks in scores of Wagner’s late music dramas, especially those in internationally-oriented performing scores. Editors often went beyond translating German directions to outright rejection and replacement of Wagner’s originals with inappropriate pseudo-Italian markings. These unauthorized editorial additions are found in the Schirmer Wagner scores. Accordingly, dynamics suggesting climax formation in the Rheingold prelude in the Schirmer vocal score are not necessarily authentic here. The Urtext has p sustained from the beginning through m. 80 and crescendos appearing in the last eight measures. Thus, very few dynamic markings are involved in making the crescendo effect. Leichtentritt aptly points out the active role of other parameters used for climax formation, saying that “the crescendo of sound in these variations is produced less by dynamic means than by the ever-growing animation of rhythm, half, quarter, and sixteenth notes, successively dominating the various periods, together with an ever-growing fullness of orchestral sound and the gradual trend upwards from the lowest region to the higher octaves. The desperate problem to sustain an Eb-major chord through 136 measures without any change of harmony has been solved here with superior art through the formal construction as well as through coloristic orchestral and rhythmical means.” See Leichtentritt, Musical Form, 169.
As noted, the harmony never veers from the Eb-major triad. Instead, the gradual addition of highlights to the triad creates a climaxing structure; this process portrays a slow, progressive unveiling of the primordial chord, analogous to the Rhine maidens’ emergence from the depths to the surface of the river. The additive form of the prelude thus conveys a synesthetic incorporation of aural, visual, and tactile dimensions.

<table>
<thead>
<tr>
<th>Formal division</th>
<th>Features</th>
<th>Phrase grouping</th>
<th>Instrumentation (augmentation)</th>
<th>Register (ascent)</th>
<th>Dynamic (crescendo at the end)</th>
<th>Harmony (static)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sec. 1 (mm. 1–16)</td>
<td>Introduction</td>
<td>Not clear</td>
<td>Bn, Db, 3 Hn</td>
<td>Gradual rise</td>
<td>Sempre pp</td>
<td>Eb major</td>
</tr>
<tr>
<td>Sec. 2 (mm. 17–48)</td>
<td>Primary motive and its fragmentation</td>
<td></td>
<td>Bn, Db, 8 Hn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pt. 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sec. 1 (mm. 49–60)</td>
<td>Elaboration of the motive via passing tones</td>
<td>4+4+4</td>
<td>Bn, Db, Hn, B.T.Trbn, B.Cl, B.Tba Va, Vc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sec. 2 (mm. 61–80)</td>
<td>Repetition of Sec. 1 and abatement</td>
<td>4+4+6+6</td>
<td>Fl, Bn, Hn, Trbn, B.Cl, B.Tba Vn, Va, Vc, Db</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pt. 3</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Sec. 1 (mm. 81–96)</td>
<td>Rhythmic diminution of the motive</td>
<td>4+4+6+2</td>
<td>Cl joins B.Cl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sec. 2 (mm. 97–112)</td>
<td>Repetition one octave above</td>
<td>4+4+6+2</td>
<td>Ob joins E.Hn</td>
<td></td>
<td>Un poco cresc.</td>
<td></td>
</tr>
<tr>
<td>Sec. 3 (mm. 113–128)</td>
<td>Repetition a further octave above</td>
<td>4+4+6+2</td>
<td>Tpt joins B.Tpt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sec. 4 (mm. 129–136)</td>
<td>Motivic fragmentation; highest tension</td>
<td>2+2+2+2</td>
<td></td>
<td></td>
<td>Cresc. in each phrase</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.7. Climax form of the Rheingold Prelude according to intensification process

The final 17 measures of Act 1 of Die Walküre, a passage of simmering romantic passion between Siegmund and Sieglinde, illustrates another interaction between syntactic and statistical
parameters in the generation of climax (Example 2.12). The process is outlined in Table 2.8. As in the *Rheingold* prelude, the gradual addition of instruments, overall melodic ascent, and dynamic enhancement are active parameters of statistical climax. However, harmony is an essential parameter in creating the climax in this passage: the structural dominant is prolonged for twelve measures before the tonic arrival.

The tonic resolution with appoggiatura at m. 13 marks the syntactic closure. However, the rhetorical drama has not yet ended, as another statement of tension-resolution occurs over a tonic pedal (mm. 15–17). Although the two approaches to the tonic share the same appoggiatura-resolution motion from A to G in the uppermost melody, the momentum in the second statement overrides the first with harmonization of the appoggiatura, addition of the trumpet group, extreme dynamic level, and doubled length.

At first glance, the second statement of the tonic chord seems like a repetition of the first. From a view of harmonic hierarchy, the second statement is a mere echo, because the diminished seventh chord in mm. 15–16 is an interpolation, a neighboring chord between the two tonic pillars. However, the stronger rhetorical force of the second cadence is perceptually overwhelming. The appoggiatura in mm. 15–16 is harmonically enriched by a diminished seventh chord, for which trumpets and a bass trumpet are added to the woodwind, brass, and string instruments. Consequently, despite the significance of the first tonic resolution an octave higher (G6), the overall energy of the second statement surmounts that of the first. The **fff** dynamics, reinforcement of the blaring brass, and intensified harmonic tension from the diminished seventh chord all exalt the second tonic statement as the most cathartic achievement; the short- and long-range result is a sharply end-accented consummation.
Example 2.12. End of *Die Walküre*, Act 1 (Dover, P160)
Example 2.12. End of Die Walküre, Act 1 (P161)
Example 2.12. End of *Die Walküre*, Act 1 (P162)
This chapter investigated individual parameters of climax and their co-function. A notable recurring theme in this exploration is reference to Meyer’s categorization of climax types as syntactic/structural vs. statistical/rhetorical. There are however other models for describing tension trajectories as a process of ebb and flow. In Chapter 3, I explore these dynamic arcs, first as described in literary theory, and as they can appear in opera analysis. These dynamic models will serve as the prototypes for the climax archetype.
CHAPTER 3

Dynamic Form in Literary Theory and Music

This chapter explores discussions of dynamism in literary theory and music, approaching them as prototypical models of the climax archetype in their shared concern with rise and fall of tension over time. In the first subchapter, I examine dynamic trajectories in literary narrative, surveying how traditional Western bipartite, tripartite, and quintpartite designs structure narratives, and suggesting ways in which these structures can be adapted to musical dynamism. The second, longer subchapter brings this approach to the musical domain in far more detail. I first examine various dynamic arcs presenting flows of musical tension, and compare their terminology and attributes. I then examine the existing concepts, phrase patterns, and forms used for the analysis of Romantic opera from the perspective of musical dynamism. This discussion provides a basis for the development of the climax archetype that I will present in Chapter 4.

3.1. Climax Structure in Literary Theory

Of classical narrative structures explored in literary theory, “binary opposition” is the simplest. It consists of two mutually exclusive terms, ideas, or objects, which when presented in opposition to each other form a complete paradigm. Binary opposition is often purported to underlie all language and thought, and is used widely in literature, semiotics, linguistics, anthropology, and so on.128 Binary oppositions present stark juxtapositions between two poles,

128 Specific sources for the term “binary opposition” can be found in any of a number of common-use dictionaries, including *A Dictionary of Media and Communication* (New York: Oxford University Press, 2011) and *The Oxford Dictionary of Literary Terms* (New York: Oxford University Press, 2008). According to the latter, “the theory of phonology developed by Roman Jakobson uses the concept of “binary features,” which are properties either present or absent in any phoneme: voicing, for example is present in /z/ but not in /s/. This concept has been extended to anthropology by Claude Lévi-Strauss (in such oppositions as nature/culture, raw/cooked, inedible/edible), and to narratology by A. J. Greimas.”
e.g., alive/dead, good/bad, rise/fall (Figure 3.1).

The essential point of binary opposition is simply presentation of contrasts; there is no grey area explored between the two components, nor any relation between them beyond their opposition. Furthermore, their opposition does not premise temporal progression; the oppositional relationship is static and fixed, without progress or points of convergence.

Although an expansion of bipartite form, the fundamental effect of tripartite form is utterly different, as the relation among its structural components comes to the forefront. Tripartite form interpolates a new event—whether an acute moment or extended process—linking the two opposing sides. Aristotle’s tripartite plot structure (beginning–middle–end) in Chapter 7 of *Poetics* is one such example; the three structural constituents are not simply aggregated, but interrelated, and their definitions are contingent upon one another. This interaction produces a two-dimensional structure, with temporal progression on the horizontal axis (Figure 3.2).  

129 Aristotle does not provide any diagram in his treatise; I use this illustration to show the introduction of time on the horizontal axis.
The narrative components now present an action effect, not simply a state of being: “a beginning is that which does not itself follow necessarily from something else, but after which a further event or process naturally occurs. An end, by contrast, is that which itself naturally occurs, whether necessarily or usually, after a preceding event, but need not be followed by anything else. A middle is that which both follows a preceding event and has further consequences.”

As such, the middle is not detached from the preceding and following parts; Aristotle emphasizes connectivity from the beginning to the middle, and from the middle to the end. In other words, each part is connected via causality, thereby creating structural unity and coherence—that is, a trajectory—for the narrative.

Aristotle offers another tripartite form in Chapter 18 of Poetics to explain the narrative structure of classical tragedy in particular. Just as the first tripartite form adds a (horizontal) temporal axis to the bipartite form, the tripartite form for tragedy adds a (vertical) axis of changing narrative tension. This tripartite form is made up of complication, peripeteia (point of reversal), and denouement (Figure 3.3).

Significantly, the names of the three components go beyond describing their locations in the narrative whole to invoke direction and intensity.

Figure 3.3. Tripartite form of tragedy, after Aristotle (horizontal axis: temporal progression; vertical axis: narrative tension)

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131 Aristotle, Poetics, 91.
The complication is those events leading to an accumulation or increase of dramatic tension and conflict.\textsuperscript{132} The peripeteia, a particularly poignant and highlighted event, is a turning point—for instance, the tragic reversal of the hero’s fortunes—after which all actions lead toward an unavoidable end. The denouement is the set of events leading to that end, such as conflict resolution or the spinning out of the protagonist’s fate. The three components are not isolated divisions, but interrelated via causality and probability; the denouement is specifically and intentionally the result of what happens in the complication.

The literary critic Gustav Freytag’s narrative model shows further variation and development of the narrative trajectory. In \textit{Die Technik des Dramas} (1863), he proposes a five-part plot structure to analyze ancient Greek tragedy, Shakespeare’s plays, and classical German dramas. Freytag’s well-known diagram, the “pyramid,” deals with the narrative structure in detail: introduction, rise, highpoint, fall, and catastrophe (Figure 3.4).\textsuperscript{133} This quintipartite paradigm can also be applied to internal structures, replicated in miniature within any given stage.\textsuperscript{134}

\textsuperscript{132} In \textit{Poetics}, “peripeteia” (reversal) is defined as a change in the direction of events or the protagonist’s fortune. Michael Klein explains the term as: “a sudden reversal of circumstances. Ricoeur (1984) argues that narratives function to account for suffering. Moments of suffering often coincide with peripeteia, which may clue the listener to a musical narrative.” See Michael Klein, \textit{Intertextuality in Western Art Music} (Bloomington: Indiana University Press, 2004), 140.


\textsuperscript{134} The original German terms and English translations are: \textit{Exposition} (introduction), \textit{Steigerung} (rise), \textit{Höhepunkt} (highpoint), \textit{Umkehr} (fall), and \textit{Katastrophe} (catastrophe).
The pyramid has axial symmetry centering on the highpoint, contrasting the introduction/rise with the fall/catastrophe; the horizontal axis indicates temporal progression. However, despite the essentially bilateral structure, the individual stages do not necessarily achieve mechanical symmetry; their lengths and intensities may be different in relation to their roles in the narrative development.

The five stages proceed according to temporal linearity, and are propelled down a certain path by three additional narrative constituents: the inciting moment, the tragic moment, and the moment of final suspense. The inciting and tragic moments are catalysts for progression of the dramatic narrative: the inciting moment induces the narrative unfolding; the tragic moment begins the counteraction, by providing the first consequence of reversal following the highpoint. The final suspense gives momentary thrill, before the narrative irrevocably moves towards the catastrophe. It seems to suggest a reversal of the downfall, but ultimately is only false hope.

The following discussion investigates the pyramid’s stages and critical moments in depth, with an eye towards transferring the dramatic tension described through the pyramid to musical climax. Although each stage can be examined independently to an extent, it is crucial to
remember that they seamlessly unfold a unified storyline.\footnote{Mark Evan Bonds notes that Freytag’s elaborate description of his narrative theory is overshadowed by the graphic presentation of the pyramid, due to the latter’s ease and convenience. Discussion of Freytag’s sequence of events is typically begun with the pyramid diagram, leaving the details overlooked. See Mark Evan Bonds, “The Spatial Representation of Musical Form,” \textit{Journal of Musicology} 27/3 (2010), 301–2.}

The introduction sets the mood and presents the characters. To make the introduction powerful and effective, “[it] is not necessarily a loud unison of the voices of different persons; brief but deep emotions in the chief characters may very well indicate the first ripple of the short waves which has to precede the storm of the drama.”\footnote{Freytag, \textit{Technique of the Drama}, 119–20.} Freytag’s analogy here of the introduction as the “first ripple of the short waves” recalls Kurth’s terminology and conceptualization of the beginning stage in his climax theory. Notably, both Freytag and Kurth observe that the introduction may carry successive waves of tension, but does not accumulate tension due to its introductory role to the following main phase.

The rise contains a strong driving will and gradual augmentation of conflict. The narrative becomes more exciting with the significantly increasing tension. Scenes in this stage “must, therefore, not only evince progress in their import, but they must show an enlargement in form and treatment, and, indeed, with variation and shading in execution.”\footnote{Freytag, \textit{Technique of the Drama}, 128.} In this sense, narrative intensification and expansion is the key character of this stage.

Soon after the onset of the rising phase, the inciting moment triggers forward motion. Critically, Freytag argues that the degree of intensity for this moment should not be too explosive, lest it steer the narrative trajectory away from the broader rising action: “[the inciting moment] must not be insignificant; but it must not be so strong that, according to the feeling of
the audience, it takes too much from what follows, or that the suspense which it causes, may modify, or perhaps determine, the fate of the hero.”138

The highpoint is the arrival of the maximum conflict, critical action, emotional expression, and so on, which changes the direction of the narrative trajectory. This may be “the outburst of deed from the soul of the hero, or the influx of portentous impressions into the soul; the first great result of a sublime struggle, or the beginning of a mortal inward conflict [...].” Crucially, Freytag’s highpoint is not isolated from but integral to its preceding and subsequent stages (as with the “middle” in Aristotle’s tripartite form), and ultimately to the whole narrative web. Although it is articulated as the highlighted event of extreme conflict or emotional poignancy, it “must appear inseparably connected with what goes before as well as with what follows; [...] it will, as a rule, be represented in its development from the rising movement and its effect on the environment.”139 The conspicuousness of the highpoint emerges from its place within the whole dynamic arc, and is not separate from that arc.

As a counterpart to the inciting moment in the rise phase, the tragic moment propels the fall, which is the consequence to actions taken in the rise. During the subsequent fall, the further consequences of the accumulated tension spin out towards resolution.

The moment of final suspense occurs just before the actual resolution (the ultimate consequence of the dramatic action) takes place. It is a feint or decoy: the dramatic action has already been set on the path of no return. This moment creates a sense of dramatic-temporal

138 Freytag, Technique of the Drama, 124.

139 Freytag, Technique of the Drama, 130. Freytag’s definition of highpoint coincides with Aristotle’s definition of the middle (or peripeteia), in that the highpoint is connected to its preceding and following sections as part of a narrative progression.
suspension, as if the destined end could yet be averted or overcome. This final thrill temporarily slackens the ongoing downfall, but eventually the narrative ends with catastrophe.

The reappearance of suspense during the falling stage might seem redundant, as the game-changing event has already occurred. However, the final suspense actually aggrandizes the tragic effect, by bitterly contrasting the helpless situation of the protagonist with the mirage-like vision of a different ending, despite knowledge that the tragic end is unavoidable. Indeed, for the moment to work, “the spectator must always perceive the downward compelling force of what has preceded.”140 Due to its essentially superficial nature, Freytag does not consider the moment of final suspense inevitable in narrative organization. This suggests that the function of the final suspense is basically rhetorical and tangential, subordinate to the larger level of narrative progression—that is, it is a dramatic, not narrative, device.

The great virtue of Freytag’s theory is that it closely tracks how the narrative tension moves toward and away from its highpoint under the tidy diagram of the pyramid. Although his design is more evolutionary than the bipartite or tripartite models, it is still visually clear and convenient. Yet the implementation of the three decisive moments in particular belies the mere symmetrical relation between the ascending and descending phases of the pyramid, by providing—even emphasizing—the dynamic forces that make the dramatic journey exciting. This allows for both nuance and precision in describing the narrative trajectory: a sense of gravitational pull toward the highpoint is imparted by the inciting moment; the irreversibility of the motion toward catastrophe is first confirmed by the tragic moment; the final thrill temporarily counteracts the descent toward catastrophe, which in turn further highlights the ultimate collapse. Therefore,

Freytag’s embedded dynamic elements offer multi-dimensionality beyond the clean graphic presentation of the pyramid, by incorporating the dynamic play of pace and intensity. This is the core element that enables the transference of his narrative paradigm to musical dynamism.

Music often acts similarly to dramatic narrative in terms of the dynamic trajectory of tension; whatever the musical genre, listeners intuitively sense its ebb and flow over the course of time. Then the questions are how musical dynamism is presented, and what the mechanisms for creating this dynamism may be. The following discussion investigates potential prototypes (or prototypical cases) for describing these processes, with an emphasis on their use in Romantic opera.

3.2 Prototypes of Operatic Climaxes and Highpoints

3.2.1 Musical Dynamism as Pattern

Music bears varying degrees of dynamic intensity in the course of its temporal progression. In its simplest form, the temporal process of musical climax can be summarized as a bipartite form: musical momentum increases, then the propulsive drive falls away; no highpoint is present here, just the two contrasting motions. Tripartite form elaborates on this pattern by specifying the presence of a highpoint, an event that changes the trajectory from rise to fall. In this way, the fundamental form of narrative trajectory in literary theory is applicable to the trajectory of musical tension. All of the following dynamic patterns are more or less based on this tripartite paradigm.

Scholarly discussion of these processes can be traced back to Kurth’s exploration of energetics; in his theory, the “waves” indicate various dynamic arcs charged with kinetic momentum (see Chapter 1.1). Post-Kurthian scholars created similar terms such as “dynamic
curve,” “narrative curve,” and “intensity curve.” Most of these are diagrammed as similar to the following linear pattern (Figure 3.5).

![Dynamic curve](image)

Ratner defines “dynamic curve” as “a means of organizing a large section of music by constant growth in tension, generally leading to a significant climax (highpoint), or, conversely, by contrary decrease to a point of minimum action.”\textsuperscript{141} He offers the Tristan prelude as an example of a dynamic curve, a huge swell toward a compelling apex and a quick dynamic decline to the quietness of the starting point. He also notes that the overarching dynamic curve is an aggregate of smaller dynamic curves containing their own peaked structures. Moreover, he analyzes “Isolde’s Transfiguration” (titled “the Love-Death” in his book) as a great dynamic curve, woven from two principal figures (derived from mm. 1–4 and mm. 44–46, respectively).

Ratner considers the rise and fall of the dynamic curve parallel to the ebb and flow of human feeling; he believes that this accounts for part of the visceral effect of Wagner’s music on listeners.

Wallace Berry’s “intensity curve” is analogous to Ratner’s dynamic curve; it describes upward and downward trajectories caused by various musical parameters. Like Ratner, Berry also points to the psychological effect of tension growth and abatement:

In music that is composed (as opposed to music of random operations or random consequences), actions (changes, events) involving various elements (lines of pitch change, tonal and harmonic succession, rhythm and meter, texture, and coloration) are so conceived and controlled that they function at hierarchically ordered levels in processes by which intensities develop and decline, and by which analogous feeling is induced.\(^\text{142}\)

Berry sees music as “dialectically in balance between intensifying and resolving tendencies.”\(^\text{143}\) His intensity curve is the place in which this dialectical interplay of opposite forces unfolds over time; its musical events, woven through collaboration of multiple parameters, occur at different hierarchical levels in the intensity curve.

Meyer’s “dynamic curve,” an additive form built on statistical accumulation, is a tripartite structure comprising intensification, climax (highpoint or apotheosis), and abatement.\(^\text{144}\) He applies the dynamic curve to Romantic music, in which syntactic function becomes flattened by the force of statistical accumulation. Meyer argues that the more flattened and weaker the syntactic demarcation, the more readily continuous statistical forms take shape, because of the latter’s open-ended, additive nature. He is particularly interested in the continuous ascent of a series of dynamic curves, creating a compound form with globally increasing tension. This is demonstrated in his analysis of “Isolde’s Transfiguration” as a statistical climactic.\(^\text{145}\)

Agawu discusses both “dynamic curve” and “narrative curve.” The former first appeared in his dissertation.\(^\text{146}\) Agawu treats the dynamic curve as an abstraction of the dynamic process


\(\text{143}\) Berry, *Structural Functions in Music*, 6.

\(\text{144}\) Leonard Meyer, *Style and Music* (Chicago: University of Chicago Press, 1989), 311. Meyer does not make terminological distinctions between climax, highpoint, and apotheosis; they are used interchangeably.


\(\text{146}\) Kofi Agawu, “The Structural Highpoint as Determinant of Form in Nineteenth Century Music” (PhD diss., Stanford University, 1982), 9.
analyzed within a musical work; according to Agawu, the dynamic curve is an archetypal structure of musical dynamism, but not a pre-compositional mold. His dynamic curve visualizes the trajectory of tension created by the complementary function of parameters such as text, harmony, and rhythm, representing “a cumulative measure based on significant coincidence of various parametric processes.”

The “narrative curve” Agawu uses in his analysis of Schumann’s *Dichterliebe* concerns the kinetics of intensity. Its visual presentation is quite similar to that of the dynamic curve: ascending intensity, highpoint, and descent. Agawu seems to prefer “narrative curve” in light of the text, as it invokes the dynamism embodied in Heine’s poems alongside the musical trajectory; for instance, Agawu notes that the “point of reversal” (*Stimmungsbrechung*), typically at the end of Heine’s poems, may be expressed as a musical highpoint, such as a melodic peak or point of greatest harmonic tension.

Patty’s “intensity curve” consists of intensification (tension increases), climax (tension peaks), and abatement (tension diminishes). Patty’s diagram of the intensity curve is a compound of individual curves, each of which is composed of intensification and abatement; he says that “the intensification and abatement phases of the intensity curve are the result of intensification and abatement in individual musical parameters.” In the diagram, the abatement of individual curves does not completely finish the process of tension decline, but is subsumed by the launching of the next curve. Through this continuous subsuming process, the

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intensification keeps mounting until it reaches the peak—a process similar to Meyer’s Sisyphean ascent.

**3.2.2 Musical Dynamism in the Analysis of Romantic Opera**

In the analysis of Romantic opera, musical dynamism is often found in certain phrase organizations and formal structures, such as bar form, sentence, musical-poetic quatrain form, lyric form, dramatic-psychological zones, groundswell, and holding pattern. All of them carry a certain degree of kineticism. While these formal concepts are widely used to account for architectural layout, the dynamism they entail is largely underexplored (with the exception of groundswell and holding pattern). This neglect is partly due to the very clarity of the formal structure labeled by signs. As with Freytag’s pyramid, if a formal structure is simply and accurately representable by symbols or letters, there tend to be less impetus to dig deeper into the invisible energetics beyond the explicit sectional divisions or their structural implications. The concision of sectional labeling comes at the cost of perceiving non-divisional, invisible channeling of energy across sections.

Table 3.1 lists phrase patterns and forms used in opera analysis that carry musical dynamism, the scholars who conceived of or advocated for them, applicable genres and composers, shorthand notation, and a brief description of how or where dynamism can be found
within them.\textsuperscript{149} There are numerous shared dynamic aspects among these prototypical models.\textsuperscript{150} The most readily apparent is the repetition of initiating musical material (indicated as $a\ a\ a\ a'$), evidencing the importance of establishing stability and balance before building tension. Nevertheless, each is distinct in organization, disposition, relevant genres, and degree of dynamism.

The models can be categorized according to how dynamism works within them, specifically by the degree to which dynamism defines them. Bar form, sentence, musical-poetic quatrain form, lyric form, and dramatic-psychological zones are all devised to illuminate phrase or formal organization. Although dynamism may be an aspect of that organization, it is subordinate to motivic and thematic content, cadence, text, and poetic structure defining those models’ operations. Groundswell and holding pattern, however, are primarily defined by their dynamic qualities; the former emphasizes aggressive climactic surge, whereas the latter frustrates progressive motion on the surface level through harmonic and melodic deadlock. The following


\textsuperscript{150} Norma’s final \textit{stretta}, for instance, corresponds not only to groundswell, but can be illuminated through sentence and bar forms, and dramatic-psychological zones. Sentence: the first four measures of the passage comprise two identical phrases, a basic idea and its exact repetition. The rising phase and final resolution can be considered a continuation phrase; bar form, following Lorenz’s flexible approach: two repeated phrases (mm. 1–4, two \textit{Stollen}) and the rest (mm. 5–13, \textit{Abgesang}); dramatic-psychological zones: thematic block (mm. 1–4), rising tension (mm. 5–10), peak and cadential resolution (mm. 11–13).
discussion delves into each model from the perspective of dynamic momentum.

<table>
<thead>
<tr>
<th>Phrase or formal organization</th>
<th>Scholars</th>
<th>Genre and composers</th>
<th>Labeling</th>
<th>Musical dynamism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar form</td>
<td>Lorenz</td>
<td>Wagner</td>
<td>aab = Stollen/Stollen/Abgesang</td>
<td>Possible</td>
</tr>
<tr>
<td>Sentence</td>
<td>BaileyShea</td>
<td>Instrumental music; Wagner</td>
<td>basic idea/repetition/continuation</td>
<td>Possible</td>
</tr>
<tr>
<td>Musical-poetic quatrain form (quadripartite)</td>
<td>Dallapiccola</td>
<td>19th-century Italian opera</td>
<td>abcd</td>
<td>Climactic moment in the third section</td>
</tr>
<tr>
<td>Lyric form</td>
<td>Lippmann, Kerman, Balthazar, Huebner, etc.</td>
<td>Bel canto and Verdi</td>
<td>aaba or aabc (standard form)</td>
<td>b section</td>
</tr>
<tr>
<td>Dramatic-psychological zones</td>
<td>Hepokoski</td>
<td>Verdi</td>
<td>Rearrangement of lyric form into three zones= initial/medial/final zones (aa/b/a or aa/b/c)</td>
<td>Rise of tension in the medial zone; culmination in the final zone</td>
</tr>
<tr>
<td>Groundswell</td>
<td>Budden, Kerman, and Grey</td>
<td>Bel canto and Verdi</td>
<td>aa’bc</td>
<td>Explicit</td>
</tr>
<tr>
<td>Holding pattern (harmonic/melodic block)</td>
<td>Gossett, Gable, Hepokoski</td>
<td>Widely applicable: bel canto, Verdi, and possibly Wagner</td>
<td>n/a</td>
<td>May increase tension in certain contexts</td>
</tr>
<tr>
<td>Cabaletta/strett in the conventional form (la solita forma)</td>
<td>Balthazar, Gossett, Powers, etc.</td>
<td>Italian Romantic opera</td>
<td>n/a</td>
<td>Climactic section within solita forma</td>
</tr>
</tbody>
</table>

Table 3.1. Musical dynamism in phrase patterns and forms used for opera analysis

Lorenz employs bar and arch forms in analyzing Wagner’s works. He applies both to any formal unit falling into AAB or ABA structure, respectively. There is no size limit; whether a four-measure theme or an entire act, any unit approximately satisfying the organizational layout
is valid.\textsuperscript{151} The bar form may also be further subdivided into bipartite or tripartite subsections.\textsuperscript{152}

Although bar form is conventionally diagrammed as AAB (\textit{Stollen–Stollen–Abgesang}), Lorenz’s treatment is neither stiff nor mathematical. He argues that bar form contains inherent dramatic momentum in projecting dynamic growth through its intrinsic directionality. The \textit{Abgesang} consummates this organic development from the smallest structural unit to the large-scale formal organization. At the thematic level:

Bar form is known to be divided into two \textit{Stollen} and one \textit{Abgesang}. If we reflect this form in the smallest dimension, the name is also applicable to thematic structure. Indeed, this application is entirely justified, as the essence of bar form lies in the seeds which the \textit{Stollen} make blossom in the \textit{Abgesang}, and it can and must be manifested even in the smallest parts. After its repetition, this spinning-out of a musical idea to a vigorous prolongation is practically a musical archetypal phenomenon; the musical procreation of a creator is seen directly in the formation of such a viable smallest-possible \textit{Abgesang}.\textsuperscript{153}

In bar form, \textit{Abgesang} becomes highlighted through intensification from the preceding sections. Lorenz says that “the \textit{Abgesang} always means an intensification (\textit{Steigerung}) over the \textit{Stollen} and comes at the end. Dramatic vibrancy therefore can be better regenerated in [bar] form, than when the intensification falls to the middle section” —that is, AAB is more conducive to dynamic growth than ABA.\textsuperscript{154} In this sense, bar form is end-accented.

\textsuperscript{151} Lorenz goes so far as to argue that the whole three acts of \textit{Tristan und Isolde} comprise an arch form (ABA).

\textsuperscript{152} Lorenz suggests detailing the organization of the subsections though letter indications: \textit{mn, mn, xy} and \textit{mno, mno, xyz}.

\textsuperscript{153} Lorenz, \textit{Das Geheimnis der Form}, 103. The original text is: “Der Bar zerfiel bekanntlich in 2 Stollen und einen Abgesang. Denken wir uns diese Form in kleinsten Dimensionen, so ist der Name auch auf die Themenaufstellung anwendbar. Ja wir sind zu dieser Anwendung vollenommen berechtigt, da das Wesen der Barform darin besteht, daß die Keime der Stollen im Abgesang neue Blüten treiben, und dies sogar schon in kleinsten Teilen sich offenbaren kann und muß. Diese Fortspinnung eines musikalischen Gedankens nach seiner Wiederholung zu einer lebensvollen Verlängerung ist beinahe ein musikalisches Urphänomen und gerade in der Gestaltung solcher lebensfähiger kleinster „Abgesänge“ zeigt sich die musikalische Zeugungskraft des Schöpfers.”

\textsuperscript{154} Lorenz, \textit{Das Geheimnis der Form}, 145. The original text is: “Der Abgesang bedeutet ja immer den Stollen gegenüber eine Steigerung, welche also hier am Schlusse erscheint, und so kann sich das dramatische Leben in
What Lorenz specifically means by “intensification” remains somewhat obscure. Because Lorenz does not thoroughly examine the exact mechanism of intensification, how it is developed or evolves from Stollen to Abgesang is occasionally ambiguous from a dynamic standpoint. Thus, the argument for dynamism in bar form is better understood on a contingent basis; the motion from Stollen to Abgesang may or may not entail dynamism, thus said dynamism will not be its key character.

Even though it can be indicated using the same shorthand (AAB), the organization of sentence is more prescriptive and detailed than bar form. Originally theorized by Schoenberg, a tightly-knit sentence consists of a four-measure presentation and four-measure continuation; the former is subdivided into a two-measure basic idea and its repetition. Motivic treatment, phrase symmetry, and cadence are the defining factors in analyzing sentence. Any dynamism within the structure occurs as a byproduct of the workings of the defining parameters. As Caplin notes, this is most evident in the continuation portion, which is built on harmonic acceleration, thematic/motivic fragmentation, and liquidation.155

Although the tightly-knit sentence is most closely associated with thematic structure in sonata form, loosely-knit sentences allowing for great flexibility are useful for analyzing a wider repertoire. BaileyShea analyzes Wagner’s phrases through the lens of sentence in “Wagner’s Loosely Knit Sentences and the Drama of Musical Form.” Referring to musical gestures as well as the dramatic context in which those phrases are situated, he suggests three sentence types in
dieser Form besser erneuern, als wenn die Steigerung in die Mitte fällt.”

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155 In William Caplin’s ternary form, the stability of the first section is presented in contrast to the instability of the middle section. This instability is achieved through harmonic departure from the tonic, sequential progression, and breaking the phrase symmetry (through phrase expansion, compression, and interpolation). In the progressive musical structures, instability is understood as entailing momentum and drive towards stability. See Caplin, *Classical Form* (New York: Oxford University Press, 2000), 75–80.
association with dramatic meaning: 1) agitation and collapse; 2) exhaustion and dissolution; 3) emergence and evolution.

“Agitation and collapse” generally follows the standard tripartite trajectory of tension; in an extract from *Parsifal*, Act 3, Scene 2, the music (especially in the orchestra) rises in agitated motion, reaches its highpoint, and collapses (Example 3.1). BaileyShea notes that this climactic rise and fall over six measures is a unified gesture, and conveys a sense of being closed despite its loosely-knit organization and lack of cadential demarcation.


156 BaileyShea, “Wagner’s Loosely Knit Sentences,” 25–26. Although the melodic contour drops in each phrase, an ascending sequence in mm. 1–4 ultimately achieves the highpoint on the downbeat of m. 5. This is followed by descending pitch, rhythmic deactivation, and lowered register.
BaileyShea’s second sentence type, “exhaustion and dissolution,” is a drawn-out anticlimax. In a passage from Wagner’s *Das Rheingold*, Scene 2, Loge prophesies that the gods will perish without Freia’s apples, a vision graphically conveyed in the orchestra (Example 3.2). The passage sluggishly moves towards rest and silence due to the gradual enervation of forward momentum. BaileyShea holds that “there is no melodic climax and no wave-like structure. The basic idea and repetition simply initiate a downward trajectory, and the continuation literally continues this process […] the sentence creates a musical gesture that essentially acts out and encapsulates the process of aging, death, and decay that Loge warns is the fate of the gods.”

This sentence is devoid of driving power, but still progressive in that it portrays the gradual process of energy draining from the beginning.157 In this regard, the gesture, its parameters, and associated meaning of this sentence can be easily transferred to the general features of the falling phase in a dynamic curve.

157 According to BaileyShea, this type of sentence is relatively rare in Wagner’s works. See “Wagner’s Loosely Knit Sentences,” 28.
Example 3.2. “Exhaustion and dissolution” sentence, Das Rheingold, Scene 2, after BaileyShea

In the “emergence and evolution” sentence, a motive gradually develops and expands in a continuous unfolding; this may or may not involve dynamic growth or a sense of forward motion. An excerpt from the prologue of Götterdämmerung exemplifies this type of sentence; it is set as a question-response dialogue: questions about the dim light by the first and second Norns, and the third Norn’s identification of the light with Loge’s fire (Example 3.3).158

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There is a certain affinity here with the example of “agitation and collapse” — both gestures roughly rise and fall. However, there is neither high drama nor deep emotion in Example 3.3, due to the soft dynamic and relaxed path toward highpoint. This sort of sentence spins out the initial musical material rather than creating a substantially progressive, dynamic drive.

BaileyShea’s three sentence types clearly demonstrate their structural potential to be integrated into a dynamic pattern. More importantly, the dynamic momentum that each sentence type exerts actively communicates with the given text and dramatic meaning; this aspect is a critical component of my climax theory, geared towards illuminating the dynamic process in
relation to the dramatic content in opera.

Dallapiccola’s article “Words and Music in Nineteenth-Century Italian Opera” also touches on issues of climax, as exemplified by his model designed for the analysis of set pieces in nineteenth-century Italian opera—what I call “musical-poetic quatrain form.”\(^{159}\) He finds the ground for his theory in literature, arguing that poems by Dante, Petrarch, Hugo, and Baudelaire show processes of climax building in their rhymed quatrains, in which the second line is a continuation of the first line with a slight increase of emotional intensity; the third line gains emotional emphasis through ascending, climactic vocabulary; the last line decreases the intensity. Dallapiccola gives an excerpt from Hugo’s *Booz endormi* (*Booz asleep*) as an example of the quatrain form:

> Ruth songeait et Booz dormait; l’herbe était noire;  
> Les grelots des troupeaux palpitaient vaguement;  
> Une immense bonté tombait du firmament;  
> C’était l’heure tranquille où les lions vont boire.

Ruth mused on and Booz slept; the grass was black  
The bells of the flocks palpitated vaguely  
An immense goodness fell down from the firmament  
It was the tranquil hour when the lions go to drink.\(^{160}\)

Dallapiccola finds that “the descent implied by the verb *tomber* (to fall down) is canceled by the adjective *immense* and by the noun *firmament*.” Likewise, he finds climax in a passage from Baudelaire’s *La Mort des pauvres* (*The Death of the Poor*): “notice, in the third line two

\(^{159}\) The term is my contrivance, as Dallapiccola did not provide a term for his analytical model. As with lyric form, it comprises four phrase units, and textual organization is one of the determinants for phrase division. However, his model is not as organizationally polished as lyric form, as he did not delve into key structure or harmonic/thematic relations among phrases. Therefore, the musical-poetic quatrain form can best be understood as prefiguring lyric form, before the latter was first circulated in 1980s in the analysis of Italian Romantic opera.

\(^{160}\) Dallapiccola, “Words and Music,” 127. Translation is mine.
verbs suggesting ascent: *monte* (to climb, to rise) and *enivre* (to enrapture)—not to speak of the noun *élixir.*”

C’est la Mort qui console, hélas! et qui fait vivre;
C’est le but de la vie, et c’est le seul espoir
Qui, comme un élixir, nous monte et nous enivre,
Et nous donne le coeur de marcher jusqu’au soir;

It is death that consoles, alas, and makes us alive
It is the purpose of life, and it is the only hope
Which, like an elixir, raises and inebriates us,
And gives us the heart to walk till evening.161

Dallapiccola contends that this poetic structure serves as the basis of a quadripartite musical organization of set pieces. Actually, his examples of four-part poetic-musical form often correspond to lyric form.162 A particularly interesting point is Dallapiccola’s argument that the deeper pathos and emotional crescendo in the third section of the poetic quatrain is ideally reflected in musical settings: in a single quatrain, the third line reaches a culmination; for a double quatrain (4+4=8 lines), the fifth and sixth lines are the apex. According to his analyses, the devices for achieving this musical culmination are “rhythmic animation, unexpected harmony, ascending vocal line, and striking instrumental idea,” similar to those used for climax intensification as discussed in Chapter 2.163

Dallapiccola extends the musical-poetic quatrain form from phrase units to larger contexts as well. For instance, he shows that the cumulative design of the musical-poetic quatrain


162 For instance, Dallapiccola segments the first sixteen measures of the *Rigoletto* quartet (“Bella figlia dell’amore”) into four parts; each is further divided into two subsections based on prosody. The passage may also be interpreted as *aa’ba’* lyric form in reference to harmony and melody, but this is never brought up. See Dallapiccola, “Words and Music,” 123.

form constitutes the main section in the Act 2 trio of *Un ballo in maschera* (Example 3.4).

Example 3.4. Main section of the Act 2 trio from *Un ballo in maschera* (Ricordi)
Stanza 1 and 2 each comprise four four-measure phrases plus an eight-measure codetta
Example 3.4. Main section of the Act 2 trio from *Un ballo in maschera* (cont.)

Stanza 3 omits the codetta.
Example 3.4. Main section of the Act 2 trio from *Un ballo in maschera* (cont.)

Stanza 4 has the codetta and moves into the coda.
Example 3.4. Main section of the Act 2 trio from *Un ballo in maschera* (cont.)

The scene is highly suspenseful: the lovers Amelia and Riccardo have met in secret and only barely avoided being caught by her husband Renato; as Amelia is veiled, Renato does not know her identity, but escorts her back to the town upon Riccardo’s request. Table 3.2 outlines the musical-poetic structure of the main section of the trio after Dallapiccola.

The main section of the trio consists of four stanzas, each of which contains a double
quatrain. Stanzas 1 and 2 each comprise four four-measure musical phrases (where each phrase accommodates two poetic lines) plus an eight-measure codetta; Stanza 3 omits the codetta; Stanza 4, with codetta, moves into a coda for the whole trio. Each stanza reaches the climactic moment in the third section (lines 5–6 in the double quatrain).

<table>
<thead>
<tr>
<th>Stanza 1</th>
<th>Culmination</th>
<th>Character</th>
<th>Tension trajectory</th>
</tr>
</thead>
<tbody>
<tr>
<td>(mm. 1–24/1)</td>
<td>Lines 5–6</td>
<td>Amelia</td>
<td>Onset</td>
</tr>
<tr>
<td>Stanza 2</td>
<td>Lines 5–6</td>
<td>Renato (joined by Amelia)</td>
<td>Double emotional crescendo via vocal addition</td>
</tr>
<tr>
<td>(mm. 24/2–48/1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanza 3</td>
<td>Lines 5–6</td>
<td>Riccardo (joined by Amelia and Renato)</td>
<td>Triple emotional crescendo</td>
</tr>
<tr>
<td>(mm. 48/2–64/1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanza 4</td>
<td>Lines 5–6</td>
<td>Amelia and Renato (lines 1–4); Riccardo joins (line 5)</td>
<td>Decrease of intensity</td>
</tr>
<tr>
<td>(mm. 64/2–88/1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coda</td>
<td>Lines 5–6</td>
<td>All</td>
<td>Climactic peroration</td>
</tr>
<tr>
<td>(mm. 88/2–110)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Table 3.2. Structure of the main section, Act 2 trio in Un ballo in maschera, after Dallapiccola |

Dallapiccola discusses a dynamic trajectory over the four stanzas. The third section of Stanza 2 produces an increased degree of intensity through a “double emotional crescendo,” literally doubling the number of singers and consequently doubling the registral range in lines 5–6. Stanza 3 is further enhanced via ascending pitch (at the beginning of each of the first four lines: A4–C5–E5–F5), the addition of a third voice, and expressive emphasis at the end of lines 1, 2, and 3 (line 1: “Ah, fuggi”/ line 2: “Ti salva”/ line 3: “Va, fuggi”). Finally, lines 5–6 of Stanza 3 reach the highest pitch in the passage, creating a highpoint within the main section of the trio. After this culmination, Stanza 4 returns to the music of Stanza 1, but retains the vocal augmentation. Thus, while the phrases in the passage are symmetrically balanced, a gradual dynamic swell plays out over the first three sections and dissipates in the last.
Dallapiccola’s placement of culmination somewhere within the third section roughly corresponds to a two-thirds proportion for Romantic music proposed by Meyer and Agawu. However, Hepokoski assigns climax to the final dramatic-psychological zone in Verdi, and highpoint occurs at the beginning of the last part in groundswell, which itself comes in the coda area of an aria or ensemble piece. The relatively earlier culmination in Dallapiccola’s model is perhaps best ascribed to the balanced four-part structure of the Italian text, rather than the intensity of the musical sound; because the prime determinant for phrase construction in his analysis is poetic organization, climactic emphasis naturally falls in the third stanza of the main section in the trio.164

Lyric form—a term circulated after the publication of Dallapiccola’s article—comprises four phrases set to a poetic quatrain (four lines) or double quatrain (eight lines). It differs from Dallapiccola’s model in that it seeks to unify both poetic and musical structures, with more balanced consideration of musical components such as melody, harmony, and cadence. Its normative labeling is $a a b a$ or $a a b c$, with possible prime or double prime indications depending on the degree of melodic and harmonic deviation in later parts.165 The different

164 In listening, I find that the most aurally dynamic section in the trio is Stanza 4 and the coda. This conflicts with Dallapiccola’s interpretation, by assigning the climax far later in the trio. The musical material for Stanza 4 is originally drawn from Stanza 1; the re-treatment of the material, combined with vocal augmentation and the excitement gradually accumulated over Stanzas 2 and 3, leads to the full-scale culmination of the coda: maximum rhythmic activity, as the vocal rhythms are reduced to the eighth note; staccato texture in voice and orchestra carrying the urgent mood; harmonic tension through chromaticism; and a shift from $pp$ to $ff$ at the final $V–I$ motion. In this way, the coda is the most dynamic part within the passage, although this reading does not mean to suggest that the trio is in a typical end-accented climax structure or consistently accumulative form.

165 Dénes Bartha’s concept of “quatrain-refrain form” (Q–R) can be considered a predecessor of lyric form as well. Originally drawn from eighteenth-century popular and folk tunes with text, quatrain-refrain form is useful for analysis of Haydn and other Classical composers. He reinterprets three-part song form $\|: A :\|: B+A :\|$ (equivalent to rounded binary) as a four-unit structure plus repetition of the last two units, for total six units (AABA BA). The first unit has restrained dynamics; the second unit is repetition or slight variation of the first; the third unit features “articulative changes in smaller motives, increased dynamic-melodic-harmonic activity, faster harmonic rhythm, modulations” and is “open-ended”; the fourth unit has a “codetta-type end-effect.” See Bartha, “Song Form and the Concept of Quatrain,” in *Haydn Studies*, ed. Larsen et al., 353–55. Hepokoski points out that Bartha’s term
endings affect how the progressive quality is perceived: the return of the initial melody at the end of $a a b a$ creates a sense of closure, completion, and settledness; the introduction of $c$—a new melody, key, or any musically significant deviation from the initial phrase—facilitates a sense of open-endedness and continuation to subsequent measures.

In lyric form, dynamism is not essential to formal structure; the sectional divisions are determined by textual organization, key and harmony, cadence, and melody. Explicit dynamism may be felt in later sections as a byproduct of a particular musical realization, a tendency that scholars have noted. Kerman argues that the last section in the lyric form can accommodate climax:

Opening phrases are marked $a$, middle phrases are marked $b$, and concluding phrases which reach a climax, return to the tonic and make the main cadence are marked $a$ (or $a'$ or $a''$) if they employ material from the beginning of the melody, and $c$ if they do not.”

In a similar vein, Scott Balthazar holds that the concluding phrase(s) of the last section in lyric form “tend (at least after 1830) to provide a culminating intensification of musical expression and excitement by incorporating greater rhythmic activity, more florid melody, and more prominent climaxes of melodic range.”

“quatrain” is inaccurate, because lyric form is typically set to eight lines of verse, not four. He also points to the possible confusion that the term causes, saying that current theorists are likely to prefer to use “sentence” for eight- or sixteen-measure unit, and “binary” or “rounded binary” for larger structural levels. See Hepokoski, “Ottocento Opera as Cultural Drama,” 158–59.

166 Scholars have also explored the ramifications of standard lyric form. For example, in “Lyric Form and Flexibility in Simon Boccanegra,” Kerman notes lyric variants including a contraction in which one of the four phrases is omitted (e.g., $a a' b$ or $a a' c$). Furthermore, standard and non-standard lyric structures constitute a section in a larger ABA’ or da capo form. Kerman observes that the larger tripartite form becomes more important with Verdi’s undertaking of French grand opera, Les vêpres siciliennes.

167 Kerman, “Lyric Form and Flexibility,” 49.

168 Balthazar, “Rossini and the Development of the Mid-Century Lyric Form,” 106.
To overcome the limitations of lyric form as presented alphanumerically, Steven Huebner proposes an analytical alternative based on harmonic criteria. His method examines the harmonic functions in normative and non-normative phrases derived from lyric form. Huebner categorizes two types of harmonic behavior: “additive return,” in which the tonic chord in root position returns at the end of third phrase; and “integrated return,” in which that chord returns at the beginning of the fourth phrase. Example 3.5 illustrates additive return in a four four-measure structure.

Example 3.5. Additive Return: Donizetti, Roberto Devereux, Act 1, after Huebner

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169 Huebner, “Lyric Form in Ottocento Opera,” 126–27. Although Huebner does not directly address dynamism, the passage suggests dynamic rise and fall over three stages: mm. 1–8 as the relatively static phase, mm. 9–12 as intensification via phrase diminution and sequence, and mm. 13–16 as the climactic conclusion through smaller note values, melodic ornaments, the highest pitch (A5 in m. 15), and the extended and elaborated dominant harmony (vii6/3/V–V6/4–V5/3), which dramatizes the tonic arrival at the end.
In Huebner’s analysis, the first and second phrases constitute a period, despite the nearly identical melodic content. The third phrase is developmental, due to the introduction of a new key area, tonicization of scale degree 2, and subdivision of the phrase into two sequentially related parts; this phrase ends with V–I. The fourth phrase begins with tonicization of dominant and cadences again in tonic. Therefore, “the fourth phrase fulfills the function of closure but not that of return” because the tonic return already happened, at the end of the third phrase. Based on this harmonic content, Huebner interprets the straightforwardly lyric form phrase as binary form (8+8 mm.).

Example 3.6 is another instance of this reinterpretation of lyric form, in a passage comprised of three four-measure phrases.170


Huebner finds that the first phrase is characterized by harmonic stasis; the second phrase, however, has a developmental character due to quickened harmonic rhythm (two times faster) and melodic parallelism between its two subsections (mm. 5–6 and 7–8). The third phrase contains both tonic return and syntactic closure. Huebner concludes that the passage is “richly ambiguous,” but may be considered binary form (8+4 mm.).\(^{171}\)

Huebner’s reinterpretation of lyric form rests on harmony. Because—a propos Meyer’s statistical climax—harmony as a sole climax parameter is very limited for exploring dynamism

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\(^{171}\) Huebner cites Kerman’s analysis of the same passage as *aa’ (?) a”*. He notes Kerman’s comment regarding that question mark: “the harmony is such that one does not immediately sense whether the second phrase is to be heard as a free repetition of the opening gesture or as some sort of new departure.” See Huebner, “Lyric Form in Ottocento Opera,” 139.
in Romantic music, Huebner’s model can be considered in relation to syntactic climax, for which harmony is one of the defining parameters. This allows for an approach to lyric form that supersedes the limitations and restrictions of the letter shorthand, and can thus clarify the structure of various non-normative lyric-form phrase.

Hepokoski’s “dramatic-psychological zones” is another attempt to reinterpret lyric form, by rearranging four phrases into three zones: \( a \ a' / b / a '' \) and \( a \ a' / b / c \)—initial, medial, and final zones, plus optional coda space.\(^{172}\) The demarcation points follow the stages of a character’s developmental process within a set scene of their emotional or dramatic evolution.

Hepokoski characterizes each zone as follows: the initial zone corresponds to the first two identical/similar sections in lyric form. As a straightforward parallel period or “symmetrical thematic block,” this zone ends with an authentic cadence in tonic or non-tonic key. Tension begins to rise in the medial zone, through new harmony, melody, or text; this space provides room for expansion of the dramatic-emotional experience of the characters. The prolongation of the dominant—building a “holding pattern,” as explained below—occurs in this zone, creating a gravitational inclination toward its resolution. The pivotal moment is when “the medial zone empties into the next zone.” The final zone contains the dramatic climax and accomplishment: “expansive, spotlighted conclusion, the moment of truth, the textual and emotional point of the song, the essence of the psychological situation.”\(^{173}\) In this zone, the character reaches a superlative point of psychological growth, through transcendence or dissolution of their initial

\(^{172}\) Hepokoski, “Ottocento Opera as Cultural Drama,” 156–57. In fact, Balthazar implies a possible rearrangement of lyric form to three sections, although differing from Hepokoski’s tripartition. Balthazar’s principal features of an archetypal melody in the mid-eighteenth century are: “thematic block (\( a \ a' \) or one of the variants), a contrasting idea (\( b \)), and a closing phrase or phrases (some version of \( a \) or \( c \)).” See Balthazar, “Rossini and the Development of the Mid-Century Lyric Form,” 107.

\(^{173}\) Hepokoski, “Ottocento Opera as Cultural Drama,” 156.
state, while the harmonic tension resolves with an emphasized PAC for an end-accented structure.

Hepokoski’s reframing of the quadripartite lyric form as tripartite more thoroughly integrates the music and drama than related models; it articulates the dynamic buildup in a step-like system, detailing the intensification process from zone to zone in conjunction with dramatic and psychological growth.

Groundswell is characterized by the mounting of dynamic forces, bringing a monumental windup to an ensemble finale. Groundswell is less prescriptive (excepting its placement) than other models discussed in this chapter; as it occurs towards the conclusion of ensemble finales set to textual repetition of the preceding parts, it does not rely on textual organization or prosody to draw phrase boundaries. Cadential demarcation is relatively unimportant as well, except for the final cadential resolution. The core element of groundswell is the dynamic escalation from repetitive stasis, through agitation, to peak.\(^{174}\)

Originally contrived to explain a harmonic/melodic phenomenon in Italian opera, “holding pattern” is less a phrase or formal organization than a harmonic/melodic block.\(^{175}\) Despite the stasis implied by its name, it can produce dynamism depending on context.

David Gable defines holding pattern as “a repeating melodic pattern supported by tonic and dominant harmony, but motionless in the aggregate.”\(^{176}\) He cites as a prototypical example

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174 For detailed discussion on groundswell, see pp. 45–48.
175 The Merriam-Webster English Dictionary defines “holding pattern” as: 1. The usually oval course flown (as over an airport) by aircraft awaiting clearance, especially to land; 2. A state of waiting or suspended activity or progress.
176 Gable, “Holding Pattern and Groundswell,” 21. Gable states that the term is Philip Gossett’s.
Mozart’s Piano Concerto K. 503, first movement, mm. 82–90, which is exclusively composed of an alternation between the tonic and dominant harmonies (Example 3.7).

The consistent alternation between tonic and dominant gives an impression of a harmonic stalemate. However, the quickening harmonic rhythm actually produces an energizing three-step progression: in mm. 82–87, the harmony changes every measure; mm. 88–89/2, every beat; mm. 89/3–89/4, every half-beat. This acceleration causes directional urgency leading to the final tonic chord as an ultimate goal point. Moreover, the crescendo at m. 88 continuously increases the volume to f. Therefore the passage is static only if one considers the harmonic content exclusively.
As an example of a holding pattern, Gable presents an excerpt from Leonora’s prayer, “Madre, pietosa Vergine,” from Verdi’s *La forza del destino*. This holding pattern has a markedly different sense of dynamism, compared to the preceding example; Gable finds that “the sense of motionlessness created by the holding pattern is ideally mimetic of the experience of timelessness characteristic of the lyric state.” He applies the I–V alternation both to the harmonic layout and melody: the passage consists of an alternation between I and V; also, the first note of
each measure shows successive shifts between the tonic and dominant tones (Example 3.8). Because the harmonic rhythm is so steady—one measure accommodates one chord—drive is rarely present. Furthermore, soft dynamics are maintained throughout the passage, and the arch-shaped melodic line of the two four-measure phrases form a symmetrical balance like a period. As Gable suggests, this stability is grounded in the dramatic context, the calmness of prayer.

(Roman numerals mine)

177 Although the passage is presented as an example of a holding pattern via harmonic stasis, one can argue for an occurrence of a highpoint at m. 6, when the vocal line reaches A-sharp5 (the highest pitch in the excerpt) over crescendo. After this aurally conspicuous event, the voice descends stepwise with accents before veering to a submediant chord (thus landing on a deceptive cadence).
Finally, Gable connects holding pattern and groundswell: the climax realization of “Isolde’s Transfiguration” demonstrates that the whole process of spinning out from a holding pattern builds a gigantic groundswell (Example 3.9). He analyzes that mm. 44–46 are a holding pattern. It is fleshed out and broadened at the culmination of the piece in mm. 61–64 through rhythmic augmentation of the appoggiatura (6–5 suspension).

![Holding pattern in “Isolde’s Transfiguration,” mm. 44–46](image)

![Climax in “Isolde’s Transfiguration,” mm. 61–64](image)

Example 3.9. Groundswell in “Isolde’s Transfiguration”

Apart from the connection between holding pattern and groundswell, the significance of this example can be the alternation between the subdominant and tonic harmony. Although Gable did not pay particular attention to harmony in this example, it shows that holding pattern is not necessarily limited to alternation between tonic and dominant, or dominant prolongation. As long as two different harmonies oscillate, creating a harmonic stillness, a passage can be holding pattern.178

I identify holding pattern according to three categories, depending on the availability of

178 Alternation of the tonic and dominant chords is applied to the surface level only. In a deeper-level analysis, the passage can be read as dominant expansion.
other intensification elements. Although all of these examples are characterized by harmonic/melodic stasis, cooperation with other dynamic parameters (e.g., pace acceleration and dynamic increase) can give holding pattern passages a range of dynamic force. The Type 1 holding pattern features stability and balance; it is basically a steady alternation between two different harmonies, most commonly tonic and dominant. On a deeper level, a passage of this type can be a prolongation of a single harmony. There is no dynamic leveling-up or pace acceleration, and the regular harmonic wavering is the only noticeable surface event. Accordingly, the passage does not exert forward drive. This type is most likely to appear at the beginning of a dynamic curve, before the tension starts to climb.

Types 2 and 3 holding patterns increase tension. The Type 2 holding pattern involves pace acceleration, dynamic escalation, melodic ascent, and so on, which increase propulsion toward the highpoint. The role of this type of holding pattern is found in Hepokoski’s discussion of dramatic-psychological zones, which identifies the holding pattern as a catalyst for intensification. In his explanation, the holding pattern comes in the medial zone, and prepares for the dynamic culmination in the final zone.

In most cases, the medial zone furnishes an increasing harmonic intensification (for instance, prolonging a holding pattern on the dominant or moving toward a strongly emphasized dominant at the end): this accumulation of energy prepares the platform from which the third, climactic zone will be launched.\(^{179}\)

The Type 3 holding pattern is similar to Type 2 in terms of tension growth and structural location. However, Type 3 features pace deceleration, through slowing down the frequency of harmonic change or through performance markings such as \textit{ritardando} or \textit{allargando}. The

\(^{179}\) Hepokoski, “Ottocento Opera as Cultural Drama,” 155.
overall momentum for tension increase is nonetheless not compromised, but unexpectedly fortified by tantalizingly delaying the arrival of culmination. All three types of holding pattern will be identified in the analyses in the following chapters.

Finally, the *cabaletta/stretta*—the last movement in a set piece structured in the conventional form (*la solita forma*) of Italian Romantic opera—operates as a climax model on the largest scale. The term “*cabaletta*” designates the final movement in a tripartite aria or quadripartite duet after the preceding *scena*; in ensemble numbers, “*stretta*” is used instead of “*cabaletta*.”

The *cabaletta* at the end of a set piece often includes a grand peroration that becomes a forum for displaying the technical virtuosity of singers. According to Balthazar, the standardized format of the duet *cabaletta* by the 1830s consists of four parts: “a showy theme, a transition dominated by orchestra and chorus and incorporating a groundswell or *Rossinian crescendo*, recapitulation of the entire theme, and a coda borrowing music from the transition.” However, Budden finds that the solo *cabaletta* increasingly dispensed with the ingredients of display, declined after 1860, and became obsolete about 1870; the duet *cabaletta* lasted over a decade longer than its solo counterpart. Balthazar also notes that Verdi modified the normative format of the *cabaletta* to channel the continuity of dramatic action, often at the expense of dynamic surge and climactic vehemence. The *cabaletta* has thus long embraced modification and

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180 The main body of the aria consists of slow movement (*cantabile*), *tempo di mezzo*, and *cabaletta*; that of the duet is made up of *tempo d’attacco*, slow movement (*adagio*), *tempo di mezzo*, and *cabaletta*. The structure of the ensemble piece maintains similarity with that of the duet, but with different terms: *tempo d’attacco*, *largo concertato*, *tempo di mezzo*, and *stretta*. See Balthazar, “The Forms of Set Pieces,” 49–59.


183 For example, Balthazar counts the following elements as innovative treatment of the aria and *cabaletta*:
rearrangement of its original form. Nevertheless, the *cabaletta* playing the role of climactic peroration is sometimes still detectable in verismo operas; *cabaletta* or *cabaletta*-like passages become a venue for a grand climax, as I will demonstrate in Chapter 5.

In this chapter, I have scrutinized phrases and forms with an emphasis on the under-examined aspect of dynamism. The prototypical models all involve musical kinetics directly or indirectly in their operations; while groundswell and holding pattern directly deal with dynamic surge and stasis respectively, other models entail such aspect as byproduct or one of the multiple features. The next chapter proposes the climax archetype as an alternative model grounded in channeling musical dynamism as the paramount attribute.

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elimination of the reprise; presentations of an abbreviated, moderately spaced theme with dialogue; camouflaging the principal melody by beginning it in the orchestra as an accompaniment to dialogue; mere allusion of the *cabaletta* through melodiousness, patterned accompaniment, and reprise when ending a slow aria; omission of the entire *cabaletta*. See “The Forms of Set Pieces,” 52.
CHAPTER 4

Climax Archetype and Its Analytical Applications

This chapter presents the climax archetype in detail and demonstrates its use as an analytical tool. The first subchapter discusses each stage’s defining traits, operational parameters, and effects within the overarching picture of climax generation. The second subchapter proceeds to analyses based on the theory of the climax archetype.

4.1 The Climax Archetype and Its Parameters

The climax archetype delineates an organic process of tension increasing towards a highpoint and its ensuing decline. It consists of four integral stages: *initiation, intensification, highpoint*, and *abatement* (Figure 4.1);\(^{184}\) an optional delay may be added at the end of the intensification.

\[ \text{Figure 4.1. Tension trajectory in the climax archetype} \]

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\(^{184}\) Most of these terms are adopted from related, widely circulated use by other scholars: “intensification” from Ernst Kurth (*Steigerung*), Leonard Meyer, and Austin Patty; “highpoint” from Kofi Agawu, Zohar Eitan, and Meyer; “delay” from David Huron; and “abatement” from Meyer and Patty. However, the precise mechanism and parameters of each stage in the context of climax archetype depart from these earlier concepts.
Initiation

*Initiation* is the onset of the climax process, establishing periodic referential units based on a phrase, theme, motive, or figure. The essential role of this stage is to inaugurate the dynamic arc and prime listeners to expect further development. Initiation is characterized by balance and stability. Unit regularity and a steady pace trigger a non-accelerating kinetic quality that may include but does not prioritize mobility; harmony tends to be stationary on a deeper level (e.g. prolongation of tonic), while secondary dominants or embellishing chords decorate the surface. Drastic dynamic change rarely occurs, but slight dynamic fluctuation is possible. Overall, any surface variation is mild and temporary, to avoid distracting the dynamic trajectory from this stage’s establishment function.

The initiation typically falls into two categories, according to the extent of the change between the initial unit and those that follow. When a unit is repeated without variation, the initiation establishes stasis and equilibrium. If the original musical material undergoes minor modifications in succeeding units—slight alterations in pitch, harmony, rhythm, and dynamics—the initiation may carry a mild progressive quality. Even if an initiation is characterized by tonic prolongation in a background or middleground reading, the specific harmonic organization of each unit may produce different effects, and thus provide the section with some sense of development. For example, if the first unit ends with a tonic triad in root position but the second unit ends with another tonic-type chord (e.g., I6, I7, etc.), the ending gesture becomes less

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185 Unit groupings are based on repeated or similar patterns. This principle resonates with Lerdahl and Jackendoff’s Grouping Preference Rule 6 following musical parallelism: “where two or more segments of the music can be construed as parallel, they preferably form parallel parts of groups.” Grouping and segmentation by this rule can be reinforced by slurs or rests, helping determine boundary delineation. See Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge: MIT Press, 1983), 51–52.
conclusive, and unsettles the potential harmonic stasis.

Pure repetition may also be avoided through minor modification of various musical elements; changing intervals, sequential motions, embellishing tones and chords, and rhythmic diminution in subsequent units produce evolution within the context of the establishing phase. Nevertheless, as Kurth and Freytag note concerning the initial stage in a dynamic arc, these changes are narratively insignificant; the musical skeleton common to each unit is unaffected, lest the balance and steadiness that defines the initiation be disturbed.

### Intensification

*Intensification* is the palpable and determined increase of energy building up to the highpoint. There are four means for intensification: 1) pace acceleration; 2) increasing dynamics; 3) unidirectional progression; 4) dominant prolongation or pedal. The first two means increase physical intensity, the purpose of this stage; they are thus “primary” categories for intensification in the climax archetype. The other two are contingent on the operation of the primary parameters, and cannot independently produce an intensification effect; therefore, these are “secondary” categories. The four intensification devices often occur in combination, collectively boosting the drive toward highpoint (Table 4.1).

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186 Note that pace acceleration, dynamic increase, and melodic motion in the climax archetype belong to Meyer’s secondary parameters, whereas the harmonic content of a cadential motion is a primary parameter.

187 In this dissertation, “structural” parameters are any information that is obtained or inferred from analysis, such as decrease or increase in the size of a phrase unit, or harmonic content, etc.; “rhetorical” parameters can be attained without such analytical mediation, and include dynamic intensity, highness or lowness of pitch, acceleration or deceleration of pace by score indications or *rubato*, etc.
<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter</th>
<th>Operational means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Pace acceleration</td>
<td>Structural: fragmentation or truncation of unit size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rhetorical: performance markings such as <em>accelerando</em>, <em>stringendo</em>, and <em>incalzando</em></td>
</tr>
<tr>
<td>Dynamic increase</td>
<td></td>
<td>Rhetorical: dynamic markings such as <em>crescendo</em> and reinforcement of instrumentation and texture</td>
</tr>
<tr>
<td>Secondary</td>
<td>Unidirectional progression</td>
<td>Consistently ascending or descending motion (diatonic, chromatic, or mix of the two)</td>
</tr>
<tr>
<td></td>
<td>Dominant prolongation or pedal</td>
<td>Equivalent to Type 2 holding pattern</td>
</tr>
</tbody>
</table>

**Table 4.1. The four intensification categories**

Pace acceleration, one of the most readily perceivable parameters for intensification, is achieved either structurally or rhetorically. Structural acceleration is produced by the gradual diminution, fragmentation, or truncation of a referential unit.\(^{188}\) The rate of structural acceleration can be analyzed statistically, according to how many units occur per measure or how many measures (or beats) are contained in one unit.\(^{189}\)

Rhetorical pace acceleration is created through performance markings such as *accelerando*, *stringendo*, *incalzando*, and so on. As these are executed solely at the performer’s discretion, their realization is unpredictable and subjective, and, accordingly, cannot be statistically standardized.

Dynamic increase is a purely rhetorical means for intensification effect. It may be

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\(^{188}\) In this dissertation, a “unit” is a musical measurement, which may consist of a musical gesture, a phrase, or a thematic/motivic statement. Through acceleration or truncation of the musical material establishing the unit, consequent units may have a fragmentary or compressed shape.

\(^{189}\) For instance, Austin Patty coined “e/b” (event per bar) to articulate pace; the “event” may be melodic notes, motives, or chords; this concept also corresponds with my use of “unit.” See Patty, “Pacing Scenarios: How Harmonic Rhythm and Melodic Pacing Influence Our Experience of Musical Climax,” *Music Theory Spectrum* 31/2 (2009), 344.
increased through instrumental, vocal, and textural reinforcement, or by dynamic indications such as *crescendo*. This parameter is especially prominent in Romantic music due to the larger orchestral forces and aesthetic focus on visceral emotional expression; soft or dynamically unchanging passages are apt to sound somewhat reserved regardless of other climax parameters.

*Unidirectional progression* creates a sense of unrelenting mobility through consistently ascending or descending progression, which may be linear or sequential. A typical case is consistent stepwise progression—chromatic, diatonic, or a mix of the two, involving single or multiple lines. Table 4.2 shows possible unidirectional motions, with corresponding examples.

<table>
<thead>
<tr>
<th>Linear motion</th>
<th>Appearance</th>
<th>Example</th>
</tr>
</thead>
</table>
| Ascent        | \( \uparrow \uparrow \uparrow \) | Act 2 finale of *Norma*  
“La mamma morta” from *Andrea Chenier*, Act 3  
(Exs. 4.3 and 4.4) |
| Descent       | \( \downarrow \downarrow \downarrow \) | Rachmaninoff, Etude Op. 33–8 in G minor, mm. 26–29  
(Ex. 2.7) |
| Contraction   | \( \downarrow \uparrow \downarrow \) | P8/2/4–8/2/7 from *Die Walküre*, Act 1, Scene 1 |
| Expansion     | \( \uparrow \downarrow \) | Interlude of “Wotan’s Farewell” from *Die Walküre*,  
Act 3, Scene 3 (Exs. 4.7 and 4.8) |

Table 4.2. Schemas of unidirectional motion in intensification, and corresponding examples

Ascent, descent, contraction, and expansion are the four schemas of the unidirectional motion; the first two may be applied to either single or multiple lines, while the last two require

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190 Instrumental, vocal, and textural reinforcement may result in an increase of both volume and dynamics more generally.

191 In this dissertation, “linear progression” indicates any stepwise or quasi-stepwise motion; it should not be confused with the Schenkerian use.
multiple lines.\textsuperscript{192} Although ascent and expansion are far more common in intensification, any consistent linear motion produces ongoing momentum.\textsuperscript{193} However, because this parameter alone is too fragile to produce an acoustically powerful sound—and because descending or contracting motion may appear in abatement as well—unidirectional motion must be combined with a primary parameter to generate a genuine intensification effect.

\textit{Dominant prolongation} or \textit{pedal} produces tension due to the encoded harmonic idiom of the goal-oriented V–I progression. With rhythm and melody, this harmonic motion is a parameter for Meyer’s syntactic climax. However, as a prolonged dominant harmony may appear in many different musical contexts, this syntactic device is insufficient on its own to guarantee the necessary intensification effect for the climax archetype; its dynamic function is to enhance tension, and thus its operation for intensification depends on the availability of concurrent primary parameters. The Type 2 holding pattern is an example of this.

\textbf{Delay}

Sometimes, the intensification stage concludes with a \textit{delay}—a temporary sustaining or slowing down of progressive momentum before reaching the highpoint.\textsuperscript{194} Delay is not an integral component of climax archetype, since its function and effect is basically an expansion of

\textsuperscript{192} Ascending or descending lines in parallel or approximately parallel motion can be successive thirds, fifths, sixths, or tenths, or alternating patterns of intervals such as 7–6–7–6 or 5–6–5–6.

\textsuperscript{193} At first, it seems contradictory to include descent and contraction as unidirectional motions for intensification, since they are commonly associated with weakening energy or subsiding gesture. However, the direction itself is not connected to the intensification effect; rather, directional \textit{consistency} influences intensity.

\textsuperscript{194} Although frequently seen in abatement, delay (Huron) and deceleration (Patty) can also promote tension. See Huron, \textit{Sweet Anticipation} (Cambridge: MIT Press, 2006), 325–26 and Patty, “Pacing Scenario,” 329–30. Huron points out that tension caused by delay is heightened when the outcome is most predictable. This idea can be applied to the sustained dominant prolongation in a conventional cadential formula. The delay in my climax archetype basically parallels their logic.
the intensification phase. Ultimately, delay heightens the pressure to achieve a highpoint, amplifying the emotional thrill and suspense of the climax process. The mechanism is similar to a final breath or hesitation taken by a moderator at an awards ceremony, often accompanied by a drum roll and dimmed lighting before announcing the winner’s name; as the announcement is postponed, the audience’s anticipation builds to the extreme. Of course, the duration of this postponement should not be in excess, lest the anticipation dissipate. Indeed, the efficacy of delay lies in its tantalizing timing, with the goal seemingly just out of reach.

Delay is realized through pace deceleration or cadential elision. Pace deceleration is more common, and achieved through either enlargement of unit size, or gradual slowing down at the end of intensification through written-out score indications (ritardando, rallentando, allargando, ritenuto, etc.), rests, and fermatas. Less frequently, delay involves cadential elision, when a theme, motive, or figure returns in lieu of achieving the expected goal. In this case, the thematic or motivic material may reappear in an extravagant, grandiose or broad manner like an apotheosis, maximizing energy and giving a sure impression that the kinetic momentum is near the breaking point. Table 4.3 lists delay devices and gives corresponding examples discussed in this dissertation.

<table>
<thead>
<tr>
<th>Delay device</th>
<th>Example</th>
</tr>
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<tbody>
<tr>
<td>Pace deceleration</td>
<td>“La mamma morta,” Andrea Chenier (Exs. 4.12 and 4.13)</td>
</tr>
<tr>
<td></td>
<td>Act 3, Scene 4 duet, Francesca da Rimini (Ex. 5.7)</td>
</tr>
<tr>
<td></td>
<td>Act 2 duet, Andrea Chenier (dominant prolongation, Ex. 5.8)</td>
</tr>
<tr>
<td>Enlargement of unit size</td>
<td>Interlude, “Wotan’s Farewell,” Act 3 in Die Walküre (Exs. 4.7 and 4.8)</td>
</tr>
<tr>
<td>Performance markings</td>
<td>Act 2 finale, Norma (accent, Exs. 4.3 and 4.4)</td>
</tr>
<tr>
<td></td>
<td>Act 1 duet, Madama Butterfly (allargando, Ex. 5.2)</td>
</tr>
<tr>
<td></td>
<td>Act 2 duet, Andrea Chenier (rallentando, Ex. 5.8)</td>
</tr>
<tr>
<td>Thematic return</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3. Delay devices and corresponding examples

Harmonic sustention such as dominant prolongation may also be used in the delay. The
harmonic sustention here is combined with either pace sustention or deceleration, as illustrated by the Type 3 holding pattern. The sustained harmony produces an apparent harmonic stalemate that nonetheless does not weaken the rising tension, but rather fortifies it; when harmonic sustention is combined with deceleration, the delay effect takes on sense of straining to achieve the goal—and thus heightens the force of the emotional catharsis at the moment of goal achievement.

**Highpoint**

*Highpoint* is the pinnacle in the dynamic arc, a point—whether momentary or slightly elongated—of highest energy created through maximum tension or sudden release thereof.\(^{195}\) It is the most aurally arresting point, with the highest energy level. Highpoint is not detached from the preceding or following stages but placed in the continuum of the dynamic arc, corresponding to Aristotle’s “middle” and Freytag’s “highpoint.” There are numerous ways to create highpoint; at its simplest, a single parameter is involved, as seen in Kurth’s analysis of Bach’s single-line works.\(^{196}\) However, it is usually determined by the cumulative and complementary workings of multiple parameters. There are three important factors for producing highpoint, two rhetorical (dynamic and melodic motion/pitch) and one structural (harmony).\(^{197}\)

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\(^{195}\) Agawu defines highpoint according to three categories. He states that “highpoint may be a moment of greatest intensity, a point of extreme tension, or the site of a decisive release of tension.” Although he does not precisely explicate the meanings of these categories, their general intent is clear enough. 1) The moment of greatest intensity can be the maximum exertion of any climax parameter, e.g. strongest dynamics, most active rhythm, and thickest texture. 2) A point of extreme tension is likely the most structurally unstable or dissonant chord in a passage. This perceptually *marked* chord may operate as a highpoint generator within a given tonal context. 3) In contrast, release of accumulated tension, leading to an emotional catharsis, also may be the highpoint. See Kofi Agawu, *Music as Discourse* (New York: Oxford University Press, 2008), 61.

\(^{196}\) In these pieces, Kurth uses “highpoint” strictly in relation to pitch.

\(^{197}\) In climax archetype, melodic motion and pitch are categorized as primary parameters because they can be perceived immediately by the listener or score-reader, and therefore do not require syntactic context to be
Strong dynamics are the most important parameter, as sheer intensity of sound immediately appeals to aural perception. The highpoint is most likely to be assigned by a listener to the moment of greatest dynamic level regardless of whether the chord represents the highest harmonic tension or its resolution, or whether pitch is at its highest point; this is especially true for Romantic music, as sonic intensity in Meyer’s statistical climax.

When pitch is a highpoint parameter, it tends to be the highest pitch of an ascending melodic process, literalizing the term “highpoint.” However, pitch is less decisive as a highpoint parameter than dynamics; the sonic phenomenon of huge sound easily overwhelms a single high note. Therefore, should dynamics suggest a different highpoint than pitch, dynamics will determine the highpoint. By the same token, the confluence of strongest dynamics and highest pitch redoubles the intensity of a highpoint.

Harmony can be a parameter for highpoint under certain conditions. A dissonant chord can be a highpoint due to its harmonic instability and consequent tension within certain tonal contexts; by contrast, the release of harmonic tension, with its sense of gratification, may also provide a highpoint. However, harmony as a highpoint parameter is thoroughly contingent on the workings of other parameters, especially in Romantic music: whether dissonance or resolution is perceived as the highpoint depends on whether a chord is aurally compelling, since harmony on its own is rarely a definitive highpoint factor in music of the late Romantic. In climax passages with multiple parameters, harmony is far less compelling than parameters affecting physical recognition for what they are. Similarly, highest pitch as the final destination of ascending melodic motion is a gestural element in climax archetype, akin to Eitan’s approach in *Highpoints: A Study of Melodic Peaks*. (Philadelphia: University of Pennsylvania Press, 1997). Conversely, a pitch as part of a harmonic or structural context—i.e., primarily understood as a component of a chord or Schenker’s fundamental line—cannot be detached from the given context.
intensity, such as dynamics and volume, pace, texture, or instrumentation.  

Certain chords—with specific constituent tones and structures—may imply the meaning of highpoint in an extramusical sense. For instance, Hatten’s arrival 6/4 connotes aural and emotional fulfillment and elevation in resolving the preceding unstable or dissonant chord at a local level. Likewise, Johnston’s “hyperdissonance” at the climax of *Salome* is also associated with the protagonist’s agonized ecstasy.

In Italian opera, especially those that use recurring themes, the highpoint often appears as a thematic apotheosis. Apotheosis-type highpoints are made particularly grandiloquent and mighty through full orchestration, strong dynamics, accentuation, and (often) melodic unison between voice and orchestra.

**Abatement**

The main task of the *abatement* phase is to drain the accumulated tension achieved at the highpoint; it is thus generally marked by a decrease of energy. Its operational parameters include gradual *decrescendo*, descending melodic contour, deceleration, rhythmic deactivation, thinning texture, and bare instrumentation, all of which vividly and gesturally erode dynamism. Also, cadential resolution can be an abatement parameter, as it dissolves the cumulated harmonic

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198 This is a similar logic to Meyer’s argument for statistical climax, where reinforced physical intensity takes precedence over the harmonic parameter in identifying climax.

199 See the discussion of the arrival 6/4 in pp. 58–61.

200 See p. 94.

201 In Puccini’s operas, a recurring theme often closes an act, scene, or movement as formidable apotheosis. For example, Scarpia’s theme opening *Tosca* is ferociously restated at the end of his “Te Deum,” which concludes Act 1. Likewise, the Mo-Li-Hua (Jasmine Flower) theme returns in **f** in the coda section of the *concertato finale* at the end of *Turandot*, Act 1. In *La fanciulla del west*, Act 2, the melody quoted from the beginning of the Tristan prelude (A–F–E–Eb, the Longing motive) returns in its fiercest form at the end of the poker game duet.
Although abatement is frequently accomplished through parametric co-function, either syntactic or rhetorical means may take precedence: rhetorical means may create abatement while cadential punctuation is wholly or partly avoided. In this case, the abatement is more a gesture of dissolution than syntactic completion, giving an impression of being left hanging or fading out.

For the dissolution-type abatement, non-tonic pitches can be added to the final tonic; as these weaken the degree of closure, they tend to conjure up longing or lingering. These endings are often associated with particular poetic or dramatic content. For example, Agawu uses the term “poetic third” to describe a hanging gesture of the final $^3$, “leav[ing] things suspended, adding a touch of poetry to the ending.”\textsuperscript{202} He offers an example of the dangling third heard at the end of each stanza in the first song of Schumann’s \textit{Dichterliebe};\textsuperscript{203} he interprets the IAC with $^3$ in the uppermost voice in the local key D major in m. 12 as musically portraying the unrequited love of the poetic protagonist.

Expanding on Agawu’s poetic third, a fifth or sixth may also be added to the top of the final tonic chord; or, a third and fifth may appear as the bass note, undermining the rootedness of the tonic. These poetic endings may be applied to the structural tonic arrival at the end of a cadential progression, but are more likely to appear as literally the last note in a post-cadential area, so the long, inconclusive process of trailing-off ends with a mellow, gracious feel.

On the other hand, abatement may be a venue for syntactic closure while rhetorical parameters are barely called upon. In other words, dynamic decrease, melodic descent, and pace

\textsuperscript{202} Agawu, \textit{Music as Discourse}, 66.

deceleration are not always required to build abatement while cadential resolution becomes the most salient event, as it is possible to bring a sense of closure through the harmonic parameter only. If, for instance, cumulated harmonic tension in an abatement stage is released by cadential resolution while dynamics is maintained and pace remains constant, the sense of “abatement” is evoked primarily through the syntactic completion, rather than dissipation of sonic intensity. This form of abatement is frequently seen at the end of operatic climaxes which call for maintaining a dramatic-emotional “up” mood. Nevertheless, if many parameters of abatement collaborate along with harmonic parameter, their co-function renders a remarkable synergistic effect of de-intensification, a vivid enactment of dying-away gesture along with syntactic closure.

### 4.2 Analyzing Climaxes Using the Climax Archetype

The following musical examples are analyzed according to the climax archetype. These will be presented in two parts. In the first, two well-known examples of sentence and groundswell are reconsidered in the context of climax archetype. These examples articulate their dynamic trajectories quite plainly, and thus can be easily transferred to the new dynamic model. A comparison of the diverse analytical methods and their outcomes reveals their organizational commonalities and differences. The second part provides three analyses solely using the climax archetype, as pre-existing analytical models do not adequately explain their idiosyncratic organizations, and cannot efficiently reflect their dramatic immediacy and emotional intensity. These analyses reveal the advantages of applying climax archetype to opera: due to the emotional intensity in these scenes, the climax realization is neither gratuitous nor pro forma, but works in concert with the dramatic context. The climax archetype ably illuminates how the musical dynamism and corresponding dramatic narrative are closely entwined.
Some of the analyses will incorporate Schenkerian graphs to bridge structural interpretations and the perceptional approach. Although the climax archetype deals mostly with surface issues in a vein similar to Kurth’s essential idea of form as becoming (see Chapter 1.1), certain climax elements—for instance, tonic prolongation in the initiation, unidirectional or linear motion in the intensification, structurally significant chords or notes, or syntactic closure in the abatement—are efficiently and helpfully visualized by Schenkerian presentation. While the climax archetype primarily focuses on dynamic surge and decay as audible phenomena, the Schenkerian approach adds notable insights to understanding the syntactic and structural aspect of the selected climaxes.

### 4.2.1 Climax Archetype as a New Approach to Musical Dynamism

The first thematic group of Beethoven’s Piano Sonata No. 1, first movement, is a canonical instance of sentence (mm. 1–8; Example 4.1).\(^{204}\) The two-measure basic idea (mm. 1–2) is presented over the tonic chord; the following two measures (mm. 3–4) are sequential repetition of the basic idea over V6/5; mm. 5–8 are a continuation via thematic fragmentation and accelerating harmonic rhythm. The sentence structure entails a certain degree of dynamism, especially in the continuation.

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\(^{204}\) This is a very widely used example of sentence that most musicians would already be familiar with. In addition, Schenker’s discussion of the passage addresses its dynamic aspects.
Example 4.1. Beethoven, Piano Sonata No. 1, first movement, mm. 1–8

In *Der Tonwille*, Schenker analyzes this passage without referring to the concept of sentence. In fact, a great deal of his discussion touches the dynamism permeating the structure (Example 4.2).\(^{205}\)

Example 4.2. Excerpt from Schenker’s analysis of Beethoven’s Piano Sonata No. 1, mm. 1–8 in *Der Tonwille* (Ged: Gedanke, subject; V.S.: Vordersatz, antecedent phrase)

Schenker characterizes mm. 1–4 as the “tendency of the Urlinie tones to appear first in weak bars” (A-falt5 in m. 2 and B-flat5 in m. 4 in the treble), resulting in “the line hesitat[ing].” He notes the forwarding and thrusting character in mm. 5–6 created by pace acceleration,

reduction of the ascending arpeggiation to the short grace notes, and *sforzando* accents. Although he does not use terms like “highpoint” or “culmination,” he seems to perceive the downbeat of m. 7 as such, stressing “the rolled chord, the shortest way to run through an arpeggiation, marked *fortissimo*” and the subsequent “turnaround of motion.” It is noticeable that he also sees forward-thrusting action after the highpoint: although G5 (the fifth of the dominant chord) would sufficiently close off the descending line in mm. 7–8 of the treble, the line drops further to E5. In sum, the progressive motion never ceases in Schenker’s reading, which somewhat resonates with the everlasting kinetic motion of Kurthian energetics.

The climax archetype, by prioritizing the dynamic motion, clarifies the trajectory of tension, especially for mm. 5–8. Table 4.4 compares the passage as read according to sentence structure to that with climax archetype.

<table>
<thead>
<tr>
<th>Measures</th>
<th>mm. 1–2</th>
<th>mm. 3–4</th>
<th>mm. 5–6</th>
<th>mm. 7–8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence</td>
<td>Basic idea</td>
<td>Repetition</td>
<td>Continuation → half cadence (m. 8)</td>
<td></td>
</tr>
<tr>
<td>Climax archetype</td>
<td>Initiation (first unit)</td>
<td>(second unit)</td>
<td>Intensification</td>
<td>hp (m. 7/1)</td>
</tr>
</tbody>
</table>

**Table 4.4. Beethoven, Piano Sonata, No. 1, mm. 1–8, analyses according to sentence and climax archetype**

The initiation (mm. 1–4) comprises two two-measure units governed by tonic prolongation in the middleground reading; ^3 in the top (elaborated by an upper neighbor) and ^1 in the bass (ornamented with lower neighbor), creating symmetrical stability. Surface events nonetheless reveal a small degree of variety through sequential ascent of the melody and harmonic deviation to V6/5. Furthermore, the interval size of the ascending arpeggio figure in the treble gradually contracts: from C4 to A-flat5 in the first unit; G4 to B-flat5 in its second unit; and C6 to A-flat6, relegated to a grace note, at the beginning of the intensification.
Although the tonic harmony returns at m. 5, the established stability gives way to heightened dynamism in the intensification: the unit size is reduced to two one-measure units (mm. 5 and 6) drawn from mm. 2 and 4; the harmonic rhythm changes to every measure (i and vii\(^6\)); *sforzandi* emphasize the downbeats; and ascending parallel tenths between the treble and bass form an upward linear motion.

The dynamic growth reaches the highpoint at m. 7/1. This highpoint is a three-fold culmination: the highest note (C\(^6\)), strongest dynamics (*ff*), and relative harmonic instability (i\(^6\) being less stable than the root-position i at m. 2). This imposing highpoint is immediately followed by the abatement (mm. 7/2–8); it is a falling phase in the dynamic arc, with the energy progressively decreasing by means of *decrescendo* to *p*, overall melodic descent in the treble, and the harmonic progression from ii\(^6\) to V4–3 that partly releases the harmonic tension. The final *fermata* over a quarter rest confirms the state of repose and (temporarily) precludes further forward action. The collective operation of the dynamic decrease, cadential demarcation, rhythmic deactivation, and registral contraction successfully curtails the dynamic motion.\(^{206}\)

The organization of this passage in the context of climax archetype is close to the reading founded upon sentence structure and Schenker’s interpretation. The climax archetype goes beyond those approaches, however, in accounting for and prioritizing the musical ebb and flow. Most significantly, where sentence structure treats mm. 5–8 as a unified continuation, the climax archetype explains the musical progress within the four measures as three stages, for a more dynamically nuanced understanding guided by the listening experience.

\(^{206}\) Although Beethoven did not mark *diminuendo* or *rubato* following the highpoint arrival, many pianists have slowed the tempo here in recordings of this piece, presumably responding intuitively to the abatement character.
As discussed in Chapter 1.2, the final *stretta* in *Norma*, Act 2 is a paradigmatic example of groundswell (Example 4.3). As groundswell is the closest predecessor of climax archetype, analyses using each model will have some overlap, especially regarding formal divisions (Table 4.5). The following analysis based on the climax archetype offers an extended commentary on the organizational frame drawn from groundswell, while providing a more detailed understanding of individual parameters and dynamic behavior in the later part of the passage.

The passage is preceded by a two-measure instrumental introduction over I–I₆–V₄/₃–V₇–[I], led by the woodwind group (flute, oboe, and clarinet). The initiation (mm. 1–4, Type 1 holding pattern) repeats the introductory music twice, but it is texturally reinforced through the vocal entrances: Norma sings the first half of the melodic line and Oroveso the second, while the chorus provides the underlying bass line *sotto voce* along with the cello and double bass. The pace and *pp* are maintained throughout the initiation. The repetition of the melody, symmetry of the phrase size, and soft dynamics all make this stage mild and balanced. Likewise, the large-scale structure is stable, as it is basically a tonic prolongation with primary tone ^3 (Example 4.4).

The intensification (mm. 5–10) is a three-stage development (mm. 5–7, 8-10/2, and 10/3–4) and involves manipulation of pace, dynamics, melodic contour, and rising linear motion. In mm. 5–7, the bass line ascends diatonically every measure (E₂–F#₂–G#₂). At the same time, the vocal line emphasizes B₄ with upper and lower neighbors and an accent on each second beat, creating syncopation. These three measures continue the tonic prolongation (I–V₄/₃–I₆), the F-sharp₂ in m. 6 being a passing tone. In m. 7, dynamic momentum increases through *incalzando e*

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crescendo and the woodwind group playing the uppermost melody in unison with the vocal line.

Mm. 8–10/2 bring more excitement and propulsion. The bass line ascends chromatically every two beats (A2 through C-sharp3) while the main melody ascends diatonically from C-sharp5 to E5, ornamented by appoggiatura. These two ascending lines form a 5°–3 succession (or, parallel tenths every measure, counting the local resolutions only).

The second half of m. 10 brings the tension to its height, with chromatic bass ascent every beat; the melodic line ascends F#5–G#5–A5, the A5 becoming an appoggiatura to the highpoint. A final V6/5 creates strong expectation for harmonic resolution. While there is no delay per se, it is possible to argue that the accents on these two beats allow for a slight rubato in performance, further stretching the tension.\textsuperscript{208}

\footnote{Some recordings clearly reflect this delay effect. A representative example is Callas’ rendition with the La Scala Orchestra conducted by Tullio Serafin; in this recording, the tempo starts to slow down dramatically at m. 10 for a broadened peroration deifying the conclusion.}
Example 4.3. Groundswell of the final *stretta* in *Norma*, Act 2 (music only)

<table>
<thead>
<tr>
<th>Measures</th>
<th>mm. 1–2</th>
<th>mm. 3–4</th>
<th>mm. 5–10</th>
<th>mm. 11–13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundswell</td>
<td>$a$</td>
<td>$a'$</td>
<td>$b$</td>
<td>$c$</td>
</tr>
<tr>
<td>Climax archetype</td>
<td>Initiation (first unit)</td>
<td>(second unit)</td>
<td>Intensification hp (m.11/1)</td>
<td>Abatement (11/2–13)</td>
</tr>
</tbody>
</table>

Table 4.5. Groundswell and climax archetype applied to the final *stretta* in *Norma*, Act 2
Example 4.4. Voice-leading trajectory of the final *stretta* in *Norma*, Act 2 finale

The highpoint arrives through the confluence of several syntactic and rhetorical highpoint parameters, on the downbeat of m. 11. The V6/5 resolves to a tonic chord with a 4–3 appoggiatura, which also concludes the 5º–3 chain. The top pitch of the highpoint, G-sharp5, is a continuation of the primary tone ♯3 via coupling; this is also the highest pitch of the ascending linear motion beginning in the intensification. In addition, the bass drum and cymbals enter, their only appearance within the climax passage.

The abatement (mm. 11/2–13) combines a normal cadential formula ([I]–II6/5–V6/4–
V7–I, ending with a PAC) with rhetorical parameters. The instruments responsible throughout for the uppermost melody create an overall descending contour (with up–and–down motion on the surface), while a more straightforwardly descending line comes in the brass (E–A–G#–F#–E). The harmonic rhythm decelerates to every two beats. The accent on each beat in the bass line delays any forward momentum, evoking an effect of ritardando and expansiveness. Calando at m. 12 softens the sound.

The overarching organization here illuminated via climax archetype is not significantly different from that using groundswell. Nevertheless, the climax archetype provides a more concrete exposition of how the flow of tension is formulated within and across each stage by investigating the dynamic structure at both the surface and global levels.

**4.2.2 Climax Archetype for Opera Analysis**

The analyses of passages from Beethoven’s Piano Sonata No.1 and Bellini’s *Norma* explore the potential of the climax archetype as an alternative or complement to established analytical models. The three analyses that follow more convincingly testify to the need for the climax archetype as an analytical method for heretofore insufficiently explained musical structures; the application of climax archetype allows for organizational clarification of passages which cannot be satisfactorily explicated through the established formal patterns. By privileging the fluidity of musical dynamism as the primary analytical criterion, climax archetype furnishes a new way forward for understanding these more complicated cases.

A compact climax structure without delay is found in *Tristan und Isolde*, Act 2, Scene 3, mm. 93–100 (Example 4.5). Its dynamism is especially evident in the orchestral part. These eight measures are Tristan’s despairing interruption of Marke’s monologue after the lovers’ tryst is
It is set to the text, “Tagesgespennster! Morgenträume! Täuschend und wüst! Entschwebt! Entweicht!” (Ghost of day! Morning dreams! Tricky and vain! Go away! Go away!).

As Alfred Lorenz points out, the climax structure is an exact repetition, one semitone higher, of a passage from “Tagesgespräch” in Act 2, Scene 2 (Example 4.6).²¹⁰

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²⁰⁹ Measure numbers are counted from the beginning of Act 2, Scene 3.

²¹⁰ Alfred Lorenz, *Das Geheimnis der Form*, vol. 2: *Tristan und Isolde* (Tutzing: Hans Schneider), 125.
Example 4.6. Climax precedent in “Tagesgespräch” from Act 2, Scene 2

The “Tagesgespräch” passage, however, is not itself a convincing instance of climax archetype due to its lack of dynamic fluctuation. The first four measures are fortissimo (the result of a preceding crescendo to ff) with a sforzando accent every two beats, negating the possibility of further significant dynamic increase. Although the contour of the uppermost melody in the orchestra consistently rises a minor third in these measures, and the following four measures indicate tensional decay with ein wenig zurückhaltend and diminuendo, this passage is regarded not as a climax but rather as a climax precedent, primarily because of its lack of dynamic swell.
Lorenz considers the passage extraneous in the wider context of Marke’s monologue, and does not include it in his analysis of the monologue as an arch form. Aside from complicating the music-architectural perspective, this exclusion may reflect the particular dramatic circumstance as well, in that Tristan’s brief interruption is outside of Marke’s psychological world.

The passage in Act 2, Scene 3 clearly fits into the climax archetype (Example 4.5).\textsuperscript{211} Table 4.6 outlines the dynamic structure of the passage based on climax archetype. The initiation (mm 1–2) consists of two one-measure units in sequential ascent over E⁰4/3 and G⁰4/3, respectively. The intensification (mm. 3–4) cuts the second half of each unit for a reduced half-measure (two beats) unit and widens the registral gap, while crescendo and accelerando fuel the dynamic momentum. Without hesitation, the expected highpoint comes at m. 5/1 in fortissimo, while the voice arrives at the highest note, F5. The culmination is followed by a dissolution-type abatement (mm. 5/2–8), for which diminuendo and rallentando are the main parameters.

<table>
<thead>
<tr>
<th>Climax stage</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>mm. 1–2 (1+1 m.)</td>
<td>Two one-measure units in sequential repetition</td>
</tr>
<tr>
<td>Intensification</td>
<td>mm. 3–4 (four half-measure units)</td>
<td>Unit reduction to half measure (two beats); registral expansion between ascending upper melody and descending bass line in the orchestra; accelerando and crescendo</td>
</tr>
<tr>
<td>Highpoint</td>
<td>m. 5/1</td>
<td>Highest pitch (F5) in voice and strongest dynamic (fortissimo)</td>
</tr>
<tr>
<td>Abatement</td>
<td>mm. 5/2–8</td>
<td>Continuously descending bass line; rallentando and diminuendo; seamlessly transitions back to Marke’s singing</td>
</tr>
</tbody>
</table>

Table 4.6. Climax structure of Tristan und Isolde, Act 2, Scene 3, mm. 93–100

In this stage, the bass line in the abatement continues to descend while the upper melody ascends. The widening registral gap begun in the intensification therefore provides a throughline to the dynamic action. As a spatial manifestation of the growing emotional chasm between

\textsuperscript{211} Overall, the passage does not employ leitmotiv, but the uppermost melody in the abatement suggests the Desire motive heard at the opening of the prelude.
Marke and Tristan due to the latter’s betrayal, this registral expansion continues until it wears itself out, just as Tristan’s desperation burns itself out. It also elides closing punctuation, as Marke’s line “Mir dies?” (This to me?) resumes at m. 7; the ending of the climax thus is not sharply detached from the next musical rise but seamlessly transitions to it through blurred sectional boundary.

The compressed dynamic surge of this climax structure—over just six measures—with its almost impulsive rush towards intensification and immediate attainment of highpoint, pungently expresses Tristan’s impetuousness as well. The rise and subsiding of the dynamic motion is swiftly fleeting, reflecting Tristan’s ultimate helplessness against his disillusionment.

An orchestral interlude (P294/2–295/3/1) in “Wotan’s Farewell” from Wagner’s Die Walküre, Act 3, Scene 3, contains a more extended climax structure. The interlude in E major is a climactic evolution of the “Wälsung’s Love” motive (Wälsungenliebe), first heard at the end of Brünnhilde’s explanation of how and why she took Siegmund’s side against Wotan’s orders (P274 plus anacrusis–274/3/3). Although emotionally heightened, the passage does not achieve a powerful, full-scale climax, ending instead with a bitter deceptive cadence giving way to Wotan’s harsh reaction. The interlude revisits that passage with a sensually gripping climax while recreating a shift in the dramatic and musical narrative (Example 4.7).

The interlude is divided into five parts based on motivic content: presentation of the

primary motive, sequential repetition, motivic fragmentation, return of the motivic material, and motivic dissolution with cadential attempt (4+4+4+4+10 mm.). The motivic statements unfold in an accumulative way, which cannot be neatly decoded by established analytical models such as sentence, bar form, groundswell, and lyric form.²¹³ It might be possible to pass over the interlude as Wagnerian musical prose with irregular arrangement of the leitmotiv; it is not, however, necessary to do so, or to assume that such Wagnerian musical prose is unorganized. Here, the climax archetype illuminates the musical architecture. Table 4.7 outlines the interlude according to the climax archetype.

²¹³ The organization of the first three phrases suggests an AA′B form (thematic presentation, sequential repetition, and fragmentation), more or less conforming to sentence and bar form. However, the following two phrases eventually override this reading.
<table>
<thead>
<tr>
<th>Climax stage</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>mm. 1–8 (4+4 mm.)</td>
<td>Two four-measure phrase units (I–ii6 and ii6–III#, respectively)</td>
</tr>
<tr>
<td>Intensification</td>
<td>mm. 9–12 (1+1+1+1 m.)</td>
<td>Motivic fragmentation in quickening pace; contrary motion between the uppermost melody and bass line, creating registral expansion; cadential elision at the end</td>
</tr>
<tr>
<td>Delay</td>
<td>mm. 13–16 (4 mm.)</td>
<td>Restatement of the initial motive in an expansive mood through strengthened dynamics and higher register; viiø7/V at the end</td>
</tr>
<tr>
<td>Highpoint</td>
<td>m. 17/1</td>
<td>Arrival 6/4, which resolves the preceding dissonance and cumulated tension</td>
</tr>
<tr>
<td>Abatement</td>
<td>mm. 17/2–26 (10 mm.)</td>
<td>Gradual <em>diminuendo, rallentando to langsam</em>, thinning texture, sinking register, dropping out of instruments; harmonic digression to bVI at the end (deceptive cadence)</td>
</tr>
</tbody>
</table>

Table 4.7. *Die Walküre*, Act 3, Scene 3, climax structure of the orchestral interlude

The initiation consists of two four-measure phrase units (mm. 1–8) in sequential relation. However, despite their proportional balance and static harmonic rhythm, each unit carries a certain forward momentum; ascending melodic contour, dynamic increase, and smaller note values in the second half of the unit produce a progressive quality and rhythmic vibrancy.

The first unit (mm. 1–4) is further subdivided into two subunit. In the first subunit, the uppermost melody of mm.1–2 is a descending linear motion from E to G-sharp with register transfer (E5–D#5–C#5–B4 and A5–G#5 [toward F#5 at m. 3]), played by the woodwinds over the tonic harmony.\(^{214}\) The second subunit (mm. 3–4) sounds like an echo of the preceding measures; the subunit features an ascending arpeggiation of ii6, while the dynamic level rockets from *p* to *ff*, with the strings in the forefront.

The second unit (mm. 5–8) is a sequential repetition one step up; much of the musical material remains intact, including the dynamic markings, alternation between the woodwinds and

\(^{214}\) While the main melody overturns the melodic direction at the point of octave transfer, some horns play an uninterrupted descending third (B4–A4–G#4).
strings, and the overall melodic contour. Nevertheless, it is neither a copy nor exact sequencing
of the first unit, but gains further upward and forward propulsion courtesy of the new harmony
and modified melodic intervals. A Schenkerian graph clarifies these relationships (Example 4.8,
foreground; Example 4.9, middleground).

In m. 5, the uppermost melody descends from F-sharp to C-sharp; m. 6, however, does
not present the expected descending line B5 to G-sharp5, but repeats D#5-C#5 with register
transfer (F#5–E5–D#5–C#5 and D#6–C#6 [toward B#5 at m. 7]) for a dramatic leap upwards.
This melody occurs over ii6, recalling mm. 3–4 for harmonic continuity across the unit
boundary. As in the first unit, the second subunit (mm. 7–8) contains an echo-like arpeggiation
of III# in ascending motion, one step above the preceding measures. In this way, the initiation
completes a stepwise harmonic rise from I through II to III#.

The underlying balance and symmetry of the initiation is cast away in the intensification
(mm. 9–12), with the use of poco accelerando at m. 10, crescendo from p to ff throughout,
upward melodic motions, and concurrence of the previously separated woodwinds and strings.215
The intensification is a tonic prolongation; it consists of the stationary tonic note in the top and
supporting harmonic connection from I6 to I6/4 in the graphs. On the surface, however, the bass
melody is unrelentingly mobile; it consistently descends, first diatonically, then arpeggiating
vii°7, then chromatically.

215 The tempo and dynamic indications are in the orchestral score, but do not appear in the piano reduction.
Example 4.8. Schenkerian analysis of the interlude (foreground level)

Example 4.9. Schenkerian analysis of the interlude (middleground level)
Meanwhile, the descending stepwise melody in the uppermost voice (from the initiation) reappears. However, it is truncated to a one-measure unit and stated four times. Although the melodic unit itself is a descending fourth, the movement from one unit to another is ascending. This successive reaching-over of the melody generates a gesture of consistent, Sisyphean struggle (E5–D#5–C#5–B4; A5–G#5–F#5–E#5; D6–C#6–B5–A#5; G6–F#6–E6–D#6). This unit-by-unit ascent in the melody and constantly descending bass line create contrary motion, persistently widening the registral gap.

Pace acceleration further enhances the dynamic propulsion. *Poco accelerando* at m. 10 quickens the pace; in addition to the decrease of the unit size to one measure in the uppermost melody, an acceleration process is executed in the bass line played by bassoon, cello, and double bass (Example 4.10). At first, the bass descends diatonically every two beats in mm. 9–10 (excepting the last note, G#–F#–E–D). This is followed in mm. 11–12/1 by a sort of transitional phase of pace acceleration from two beats to one beat, through descending A#o7 arpeggiation. After passing D-sharp, the rest of m. 12 descends chromatically every beat (C#–C♮ [to B at m. 13]). This gradual transformation from diatonic to chromatic piles up harmonic tension.

The intensification concludes with a German sixth chord (m. 12/4), which raises

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216 In the orchestral score, only the third bassoon plays the unidirectional descent from G-sharp3 to C2.
expectation for a resolving cadential 6/4. A rallentando in the same measure maximizes desire for release as well. However, highpoint arrival is postponed by a return of the initial motivic material at the downbeat of m. 13; the 6/4 expected, as the resolution of the German sixth chord turns out to be I6/4, instigating the delay.\textsuperscript{217} A tempo at m. 13 also suggests that the following phase has not yet arrived at the expected goal.

As such, the delay (mm. 13–16) revisits the motivic statement of the initiation (best illustrated in the voice-leading graph in which the delay replicates the initiation), fusing the two phrase units in mm. 1–8 into a single four-measure unit: the second half of each phrase unit from the initiation is excised, leaving materials from mm. 1–2 and mm. 5–6. The result is a drastic ascending motion in the uppermost melodic line through doubled octave transfer at the surface (a stepwise ascent from E to F-sharp [to G-sharp] in the melodic reduction). Yet the delay is not a mere fusion of the previous material, but enhances momentum by presenting the motive like an apotheosis; rhetorical parameters—stronger dynamics, dense texture, and reinforced instrumentation—prevent tautological redundancy, while mustering all the musical forces for the imminent culmination.\textsuperscript{218}

The highpoint finally arrives when the vii\textsuperscript{ø7}/V chord at m. 16/4 resolves to a cadential 6/4 at m. 17/1, ff in all instruments (the strongest dynamic level in the interlude).\textsuperscript{219} This phenomenal

\textsuperscript{217} The effect of postponement is especially strong because all the gestures in the intensification are apparently geared toward the expected release of tension via V6/4. Indeed, what plays out in this stage exactly corresponds to Klein’s explanation of the mechanism of the arrival 6/4 chord. However, V6/4 turns out to be I6/4 due to the thematic return; this moment is so poignant because the chord’s presumably resolving function is spectacularly elided.

\textsuperscript{218} The instrumentation in this example acts as a dynamic parameter in terms of its application to motivic statement in the delay versus those in the initiation and intensification: in the delay, the strings (violin and cello) and woodwinds play the motive together, with an addition of trumpet, trombone, and percussion, creating strong sonic intensity right before achieving the highpoint.

\textsuperscript{219} In this example, pitch is superseded as a highpoint parameter by the confluence of the strong dynamics and
highpoint redeems the failure at the end of the intensification to achieve a V6/4 resolution; it is truly an *arrival*, the revelatory result of the intensification process by breaking the motivic circularity. The arrival 6/4 chord has two meanings in this context. On the one hand, by addressing the preceding dissonant chord, it instantly brings relative harmonic stability on the local level; on the other, the chord is a syntactic turning point (Meyer’s syntactic climax), as it signals the start of the cadential process. Thus, the V6/4 chord is a moment of coincidence between the meanings on the local and structural levels.

The passage from the initiation through to the highpoint rises in intensity through the simultaneous workings of syntactic and rhetorical factors. Most strongly from the global perspective of harmony, the passage gradually transforms the tonic chord from stable to unstable: the tonic chord appears in root position at m. 1, in first inversion at m. 9 (beginning of the intensification), and in second inversion at m. 13 (beginning of the delay); by the time it reaches V6/4 at m. 17/1 (highpoint), its status as a stable tonic has been thoroughly undermined, as the chord becomes the point of the highest tension, the structural dominant in the middleground reading (see Example 4.9). At the same time, the arrival 6/4 chord gives a sure sign for the release of tension in the following measures, where a normal cadential process is expected. In

 harmonic resolution (arrival 6/4). The top pitch of the main melody at highpoint is actually lower than the last notes in the delay.

220 Both the I6/4 chords at m. 13/1 and 17/1 are arrival 6/4 in a broad sense. However, they are dramatically different in terms of invoking a sense of continuity (or onset) versus achievement (or arrival). Although the 6/4 chord at m. 13/1 resolves the preceding dissonance, it is perceived not as the endpoint of the intensification stage, but as a new beginning, due to the cadential elision. While the 6/4 chord at m. 17/1 also resolves the preceding dissonance, it marks the point of tension release; its psychological effect is fairly remarkable, being the first chord resolving the preceding instability and suggesting further release of tension through continued cadential motion. Consequently, these distinct functions of the arrival 6/4 chord suggest ramifications according to harmonic and motivic context: progressive I6/4 versus conclusive V6/4.

221 It is important not to confuse the possible meanings, based on different levels, of the V6/4 chord at m. 17/1. The chord is relatively unstable, compared to I and V, in a middleground reading; the same chord, however, is relatively stable on the surface reading, as it temporarily resolves the preceding vii°7/V.
this sense, the function of the arrival 6/4 chord coincides with what Meyer described as syntactic climax, which redirects the musical state from instability and ambiguity to stability and clarity.\textsuperscript{222} In sum, the highpoint of the interlude is doubly enhanced through the coincidence of the local/global dimension or statistical/syntactic climax.

The abatement (mm. 17/2–26, dissolution-type ending) is a progressive dissipation of tension through melodic descent, \textit{diminuendo}, deceleration (\textit{rallentando} and \textit{langsam}), gradual dropping-out of instruments, and depletion from orchestral \textit{tutti} to bare texture in the lower registers. The descending motion is observed on two levels: on the surface level, in the melodic arpeggiation of V6/4–V7, decorated with appoggiaturas; in the global perspective, as the structural melodic descent from E to D-sharp in the violin at m. 21 over V6/4–V7. This V6/4–V7 motion cues the syntactic closing-off of the climax with more certainty. However, after chromatic alteration from C-sharp to C-natural in the viola (m. 25), the expected tonic arrival is replaced with bVI (m. 26), which retrospectively confirms the arrival 6/4 at the highpoint as lacking a tonic resolution.\textsuperscript{223} Instead of clear syntactic closure, the deceptive cadence transitions sleekly to the resumption of Wotan’s singing.\textsuperscript{224}

The interlude occurs between Wotan’s harsh words to Brünnhilde, announcing that he will strip her of her divinity and revealing her tragic future, and his subsequent affectionate

\textsuperscript{222} See Example 1.2.5 for Klein’s discussion of the confluence between the arrival 6/4 and structural dominant.

\textsuperscript{223} That the V6/4-V7 motion is not followed by a tonic chord suggests that the dominant chords are not subordinate to the tonic in this context, at least on the surface level. The aural impact of this deceptive cadence (or cadential elision) is that V6/4 gains more autonomy and independence, because there is no chance to satisfactorily release the harmonic tension that the chord carries.

\textsuperscript{224} This ending gesture recalls that of the \textit{Tristan} excerpt above (Example 4.5); neither contains syntactic closure via PAC. But while the \textit{Tristan} excerpt is highly chromatic, leaving little space for tonal reference, the interlude contains double resolutions with V6/4 proceeding to V5/3 and bVI.
recollections of their time together. Thus, the interlude presents a twofold shift: from the bitter parental-filial relationship of present to their tender memory of past; and from Wotan’s characterization as a merciless punisher to that of a loving father. This drama is reflected in Wagner’s stage directions as well, and clearly parallels the musical dynamism. At the beginning of the climax structure: “Brünnhilde, deeply moved, sinks in ecstasy on Wotan’s breast; he holds her in a long embrace;” at the delay: “Brünnhilde throws her head back and, still embracing Wotan, gazes with deep enthusiasm into his eyes.” The musical and dramatic emotional intensification are inseparable, culminating in the sublime 6/4 chord at the highpoint that is the turning point of both the musical syntax and the dramatic narrative.

Interpolated in the middle of the final monologue of Die Walküre, the interlude accompanies neither any spectacular stage event nor the characters’ singing. Instead, the profundity of drama, the intense psychological dynamic between the two characters, is conveyed to listeners by the orchestral music itself. The climax archetype convincingly deciphers this invisible but deeply heartfelt psychological journey.

Another example of the climax archetype is excerpted from the aria “La mamma morta” in Andrea Chenier, Act 3.\(^{225}\) The heroine Maddalena recounts her misfortune following the outbreak of the revolution in France in the tonally unstable recitative; in the aria section, she gives voice to the encouragement and fortitude Chenier brings to her, in a stable G major.\(^{226}\) The large-scale structure of the aria section is an \(ABA’\) form (mm. 1–16; mm. 17–47; mm. 48–66), in which the \(A\) section is in a typical lyric form comprised of four four-measure phrases (\(a a’ b a’\)).

\(^{225}\) The aria, including the recitative section, is indicated as \(raccporto\) in Giordano’s score.

\(^{226}\) Giordano did not notate key signature in the opera.
Table 4.8 lays out tripartite form of the aria section.

<table>
<thead>
<tr>
<th>Formal structure</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A$</td>
<td>mm. 1–16</td>
<td>Four four-measure phrases in standard lyric form ($a\ a'\ b\ a''$) in G major</td>
</tr>
<tr>
<td>$B$</td>
<td>mm. 17–47</td>
<td>Shift from B minor to B major; the final B-major triad is stated climactically over ascending chordal arpeggiation in a plagal cadence</td>
</tr>
<tr>
<td>$A'$</td>
<td>mm. 48–66/1</td>
<td>Return of the $A$ material in the tonic key, eventually modified to create an end-accented conclusion with PAC.</td>
</tr>
</tbody>
</table>

Table 4.8. Tripartite form of the aria section, “La mamma morta,” *Andrea Chenier*, Act 3

The $A$ section is in quadripartite lyric form (Example 4.11): 1) phrase presentation in G major; 2) sequential repetition in the mediant (B minor); 3) harmonic and melodic departure, leading to $V^{6/5}/vi$ (BMm7 chord); 4) return of the initial phrase, concluding with a PAC. This structure exemplifies “integrated return” (tonic resolution at the end of the final phrase) according to Hübner’s classification of lyric form. The $B$ section starts in the B minor first heard in the second section of $A$; after a brief tonicization in D major, the harmony oscillates between the subdominant and tonic chords, creating a plagal cadence at the end of the $B$ section.

(a a’ b a”)

However, lyric form proves inadequate for analysis of the *A’* section (Example 4.12), since the returning section is modified considerably after the first four measures. Here, the typical lyric form is replaced with climactic building, corresponding with Maddalena’s emotional agitation towards the end of the passage. Table 4.9 maps the organization of *A’* in the context of the climax archetype. Example 4.13 shows the voice-leading trajectory and syntactic structure from the Schenkerian perspective.

The initiation (mm. 48–55) is balanced by two four-measure phrase units over tonic prolongation with primary tone ^3, but it has a slightly progressive quality as well: while the first phrase unit (I–V⁴/³/V–V⁷–I) exactly repeats mm. 1–4 of the *A* section, the second unit introduces new harmonies (V⁶/⁵/ii–ii–V⁷–I♭⁷). The second unit also carries somewhat greater momentum on a deeper level: the soprano and uppermost melody of the orchestra ascend stepwise in the voice-leading trajectory (B⁵–C⁵–D⁵, mm. 52–55 in Example 4.12); and the T–PD–D–T of the
second unit is elaborated with a subordinate chord to the PD. Furthermore, while the last chord of the initiation is supposed to provide the closing function, the tonic triad with the added seventh actually avoids firm cadential demarcation, and thereby becomes the starting point for the intensification. This uninterrupted transition between the phrases is very distinct from the closed structure in the corresponding A section passage.

<table>
<thead>
<tr>
<th>Climax stage</th>
<th>Measures (unit)</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>mm. 48–55</td>
<td>Two four-measure units over tonic prolongation; IAC at the end of the first unit, V7–I♭7 at the end of the second</td>
</tr>
<tr>
<td></td>
<td>(4+4 mm.)</td>
<td></td>
</tr>
<tr>
<td>Intensification</td>
<td>mm. 55–58</td>
<td>Unit diminution to one measure; linear ascent (6–5 chain) between the soprano and bass line; crescendo</td>
</tr>
<tr>
<td></td>
<td>(1+1+1+1 m.)</td>
<td></td>
</tr>
<tr>
<td>Delay</td>
<td>mm. 59–60</td>
<td>Momentary unit enlargement to two measures; delay through embellishment of the local dominant (V7/III#); sustained top note (F#5)</td>
</tr>
<tr>
<td></td>
<td>(2 mm.)</td>
<td></td>
</tr>
<tr>
<td>Highpoint</td>
<td>mm. 61–62</td>
<td>Resolution to III# with the highest vocal pitch (B5), strongest dynamic, and exclamatory text</td>
</tr>
<tr>
<td></td>
<td>(2 mm.)</td>
<td></td>
</tr>
<tr>
<td>Abatement</td>
<td>mm. 63–66/1</td>
<td>Cadential resolution; structural melodic descent</td>
</tr>
<tr>
<td></td>
<td>(4 mm.)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.9. Andrea Chenier, “La mamma morta,” climax organization of the A’ section
Example 4.13. Schenkerian analysis of “La mamma morta,” A’ section

The progressive momentum gains more fervor in the intensification (mm. 55–58) through dynamic increase (crescendo from m. 56), linear ascent, and pace acceleration. The soprano line continues to ascend stepwise with appoggiatura (E5–D5, F5–E5, G5–F#5; reaching-over in the graph), while the bass line rises chromatically (G2–G#2–A2–A#2); together, they create an ascending 6–5 chain. As a result, the harmonic rhythm changes every beat—a fourfold increase over that of the initiation.

The pace then slows down in mm. 59–60 in the delay, as the unit size increases to two measures. The secondary dominant (V6/5/III#) transitions into the delay as V7/III# on F#2, temporarily breaking the rising bass pattern on the surface and postponing the arrival of B2 to the next measure. The F#5 in the voice and uppermost orchestral melody is essentially sustained in these measures, decorated with upper and lower neighbors; in the ossia, the vocal line consists

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227 The appoggiatura-resolution pattern in the soprano and uppermost melody of the orchestra first appears in m. 50 in the first unit of the initiation, as E5–D5 over V7. The pattern returns in m. 53 in the second unit of the initiation, in the form of D5–C5 over ii. In both cases, the descending seconds is not the primary melodic event that characterizes the initiation. By contrast, this motion comes to the fore as the most prominent gesture in each unit of the intensification.
solely of F#5 followed by a series of rests, exhibiting temporary apparent repose of melodic and rhythmic movement. The delay increases pressure to the maximum extent by holding fast to the forward progression, while the crescendo begun in m. 56 drives the dynamic intensity to its height.

The highpoint finally arrives at mm. 61–62 over the III# harmony. The V7/III# resolves to III# at m. 60, but the true highpoint comes one measure later, with the confluence of more (and more compelling) highpoint parameters: unidirectional motion and pitch, dynamics, downbeat, and even text. The jump to the highest vocal pitch, B5, is particularly striking; its appearance is abrupt and protrusive, a striking departure from the stepwise melodic motion established in the intensification. The extreme dynamic (ff) and exclamatory text (“Ah!”) further articulate this as a culminating point.

The harmony of the highpoint, III# (V/vi in a surface reading), also has significance within the context of the aria as a whole. This chord was confirmed, through plagal motion, as the concluding key of the B section. The connection between the two appearances of the B-major chord is clear due to the similar treatment for both the B section and the highpoint in the A’ section, notably in their shared soaring chordal arpeggiation in the orchestra accompaniment. Nevertheless, key context differentiates the two. The B-major chord at the end of the B section is conclusive and brings momentary stability, as it closes the section via IAC. However, the same chord is tense and unstable in the G major of the A’ section, even though it resolves the preceding secondary dominant on the local level; this harmonic instability becomes evident retrospectively, during the remainder of the cadential resolution. Therefore, a harmony once heard as a relatively stable local tonic is subverted at the highpoint, taking on the highest level of tension and setting the path toward syntactic resolution in the abatement.
The accumulated tension dissipates in the abatement (mm. 63–66/1) through structural and rhetorical parameters. One of the most significant abatement parameters is harmony; cadential progression generates syntactic closure (ii6–V7–vi–ii7–V7–I, with structural melodic descent to ^2 and ^1), while a ritardando (with momentary interpolation of affrettando) and fermata enervate the rhythmic activity. Notably, there is no gradual dynamic withdrawal. This might seem unusual in a stage of subsiding, but it reflects the dramatic circumstances of the aria: because the dynamics endures through to the end, the climax as well as the whole aria comes to a close with Chenier’s hopeful, encouraging voice—as long as that voice continues, the sense of hope is maintained. In this context, a gradually diminishing sound would undermine the spirit Maddalena has built up by this point in the aria. Thus, the magnificent close to the climax structure confirms Chenier’s invisible but abiding presence in Maddalena’s drama.

This chapter demonstrates that passages commonly analyzed as sentence, groundswell, lyric form, or formal organization based on motivic recurrence can be convincingly and beneficially re-cast through the climax archetype; and shows how this new analytical paradigm enhances understanding of musical architecture as progressive, fluid action. By treating dynamic rise and fall as an organic, holistic process that can nonetheless be codified, the climax archetype holds tremendous potential for interpreting many shapes of tension building in opera, particularly in the late Romantic operas characterized by intensity of sound and emotion.

The next chapter delves deeper into the analytical versatility of the climax archetype, moving from standard to non-normative types. Although the analyses examples will require modifications and extensions of the climax theory, they are neither chaotic nor illogical.

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228 The vocal line in the abatement actually fluctuates up and down through register transfer at surface; the structural ^2 (A4) right before the final ^1 is missing in the vocal line, but found in the orchestra.
Theorizations of climax variants will prove the climax theory flexible and adaptable—but no less accurate—in dealing with irregular structures.
CHAPTER 5

Non-Archetypal Climaxes

5.1 Internal Deformations and Compound Variants

The climax archetype describes a normative dynamic trajectory. However, it may be altered to embrace non-normative climax structures as well to accommodate diverse shapes of climax building. Divergences from the climax archetype largely fall into two categories: internal deformations and compound variants. Internal climax deformations include the fusion or absence of climax stages, high region, and highpoint frustration. These deformations take place within a climax itself, modifying one of its integral components. On the other hand, compound variants result in a large-scale broadening of a climax. This may occur in multiple ways: climax succession refers to the concatenation of multiple dynamic arcs. Climax nesting is a large-scale climax that encapsulates smaller climaxes. The following discussion first addresses the mechanism of individual deformations and variants; these are then applied analytically.

*Climax-stage fusion* is the integration of two climax stages, through which the boundary between them is eliminated or becomes blurring. This deformation is most often found between the initiation and intensification, as both stages are moving in the same overall pace and intensity toward a peak. Sometimes, a passage can involve disagreement between individual parameters in determining stage divisions. Thus, in analyzing a fusion of stages, classifying climax parameters as either structural or rhetorical is crucial, so that one category does not obscure the operation of the other. For instance, unit size as a structural element may be maintained from the onset of a climax structure, carrying the function of initiation throughout, while a rapidly growing *crescendo*, as a rhetorical element, clearly indicates the function of intensification.
Climax-stage absence involves the absence of an integral stage; any omission of initiation, intensification, highpoint or abatement results in climax-stage absence. For example, a climax may begin with intensification, the phrase unit accelerating combined with other intensification parameters even from its onset. The lack of an initiation process establishing a steady and periodic unit results in an aggressive, stiff slope of tension rise, without an introductory stage preparing the dynamic journey; the effect is more scintillating and impetuous than a climax starting with initiation.

Another scenario is that an initiation may proceed directly to the highpoint, leaving out the exciting process of intensification. However, since one of the core aspects of the dynamic curve depends on the intensification process in which a substantial rise of dynamic energy occurs, the sudden snatching-up from the initiation to highpoint is more theoretical than practical insofar as such abrupt transitions are rarely found in actual music.

The highpoint itself may be elided by complete silence at the point of an anticipated apex. The sheer absence of sound creates a chilling effect. For example, in a passage from the Norn scene in Götterdämmerung (P11/1/6–11/2/4), the intensification ends on an eighth rest with fermata, creating an eerily empty space in lieu of a resounding highpoint.229

A final possibility is for the climax structure to end at the highpoint, not followed by abatement. There are two possible interpretations of such structures, based on what happens after the highpoint. In the case of a further climax structure cutting off a preceding climax’s

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229 Counting from 11/1/6, the five measures build a climax in a loose sense through crescendo (m. 3), rhythmic diminution (from two eighths through a triplet to four sixteenths per beat), and rising melody (over diminished sevenths, m. 5). Since the climax does not establish a clear phrase unit for referential use, it is more like a spinning-out rather than systematic development.
development, it results in *climax succession*, discussed below. If the climax concludes with the highpoint, the dynamic arc consists solely of a rising phase. The highly teleological force culminates in a monumental highpoint, and there completely exhausts its dynamic energy; the highpoint in this case is not merely a dynamic apex, but the end of the climax. The end of Act 1 of *Die Walküre* illustrates this type of absence.

*High region*, a term coined by Agawu, is a state of high activity prolonged so as to build a dynamic plateau.\(^{230}\) This happens when the flow of culminating energy is maintained through repetition or otherwise holding highpoint parameters over a significant duration. Nonetheless, a high region does not represent stasis or frozen time; even as the majority of climax parameters remain constant during the high region, a single parameter may be more dynamic, proceeding toward an ultimate goal point.

*Highpoint frustration* occurs when the expected arrival of a highpoint is thwarted. Unlike a complete absence of highpoint—silence—highpoint frustration is sounded, but not with the profile listeners are led to expect. The predicted pitch, dynamic, or harmony for a highpoint does not arrive but rather the music veers in an unexpected direction. The failure of any single highpoint parameter may be responsible for highpoint frustration. The effect of highpoint frustration is starkly poignant: unlike highpoint absence, the highpoint does occur, but as a distortion of what the audience expects. The failure of the dynamic arc betrays the entire point of the climax structure, after all. The greater the expectation that a climax structure has built for its

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\(^{230}\) For discussion of the term high region, see pp. 54–56. High region might be thought of as similar to the apotheosis-type highpoint, as the latter requires an extended period of time for the most climactic statement of a theme or motive. However, a high region is defined not only by the temporal extension of the highpoint, but also by the constancy of a majority of highpoint parameters. In contrast, apotheosis-type highpoint results from thematic unfolding, rather than continuation or repetition of the highpoint parameters themselves. If an apotheosis theme is repeated multiple times at the moment of highpoint, it can be considered high region.
highpoint, the more severe the frustration when it fails.

Manipulating the dominant chord—essential to the cadential formula—is the most common device for frustrating the highpoint harmonically. A dominant prolongation in a clearly defined tonal context signals harmonic resolution as highpoint arrival; if the expected harmony does not occur, the effect of the highpoint itself is manipulated. This type of highpoint frustration can be heard at the end of the Act 2 duet in Tristan und Isolde; here, a harsh dissonance comprised of F, G#, B, C#, and D (a corrupted version of the Tristan chord) causes highpoint frustration by diverting a “correct” harmony, even as other parameters—dominant prolongation, crescendo, gradually rising vocal melody, noch drängender (more urgently), bass reinforcement, and the unison between the voice and uppermost orchestra melody—proceed towards what would otherwise be a successful highpoint.

Compound variants fall into two categories: climax succession and climax nesting. Climax succession is a concatenation of individual climaxes. Climaxes may be linked in two ways. First, a continuous series of climaxes may occur in which each climax is self-contained and discrete, where a following climax does not start until its preceding climax finishes all integral stages (Figure 5.1).

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231 A similar example of highpoint frustration via harmonic parameter takes place when Brünnhilde is violently won over by Siegfried (appearing as Gunther by wearing the Tarnhelm) at the end of Act 1 of Göttterdammerung (P119/1/2). The expected culmination of the F-major climax building turns out to be an obtrusive half-diminished seventh chord (F–Ab–Cb–Eb), as the false identity of the hero approaching Brünnhilde’s rock is revealed.

232 The dissonance can be seen as a corrupted version of the Tristan chord; for the complete version, see “Isolde’s Transfiguration,” where the corresponding passage achieves a “corrected” highpoint (m. 61/1), a subdominant chord with a 6–5 motion in the top line.
Figure 5.1. Dynamic arc of climax succession (without absence of climax stages)

Alternately, a new climax may begin before the preceding climax has ended; the preceding climax is undercut, losing a chance to complete its dynamic arc. This subsumption allows for uninterrupted dynamic progression of two adjacent climaxes. Should a new climax structure supersede the preceding structure not only by premature occurrence but also with stronger climax parameters, it is termed *climax surmounting*.\textsuperscript{233} This kind of climax succession elicits *crescendo* in energy through its successive rising motion (Figure 5.2).

Figure 5.2. Dynamic arc of climax surmounting

*Climax nesting*, as the name suggests, is an accumulation of climax structures in which one large-scale climax harbors one or more smaller climaxes. The local climax tends to be neither highly elaborated nor particularly gripping, lest it overshadow the larger climax. Nevertheless, the small-scale climax both lengthens the stage nesting it and magnifies the overall intensity by adding layers of climax construction.

\textsuperscript{233} The term “climax surmounting” is adopted from Kurth’s “Übersteigen” in his analyses of Bruckner’s symphonies; his term describes when, in successive dynamic waves, the second highpoint outdoes the first in terms of higher energy. See Kurth, *Bruckner* (Berlin: Hesse, 1925), 410–21.
5.2 Analyzing Non-Archetypal Operatic Climaxes

The following analyses demonstrate each climax deformation and compound variant as applied to more complex and atypical climax structures. Some of the examples address multiple variants; Table 5.1 shows the deformation/compound types and corresponding examples.

<table>
<thead>
<tr>
<th>Example</th>
<th>Climax deformation</th>
<th>Compound variant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interlude from <em>Die Walküre</em></td>
<td>Climax-stage absence (lack of initiation)</td>
<td>n/a</td>
</tr>
<tr>
<td>Duet from <em>Madama Butterfly</em></td>
<td>Climax-stage fusion (initiation and intensification)</td>
<td>n/a</td>
</tr>
<tr>
<td>Duet from <em>Il tabarro</em></td>
<td>Climax-stage fusion (initiation and intensification); high region</td>
<td>n/a</td>
</tr>
<tr>
<td>Duet from <em>Cavalleria rusticana</em></td>
<td>Highpoint frustration</td>
<td>n/a</td>
</tr>
<tr>
<td>Duet from <em>Francesca di Rimini</em></td>
<td>Climax-stage absence (lack of abatement in first climax; absence of highpoint in second climax)</td>
<td>Climax succession</td>
</tr>
<tr>
<td>Duet from <em>Andrea Chenier</em></td>
<td>n/a</td>
<td>Climax nesting</td>
</tr>
</tbody>
</table>

Table 5.1. Deformation/compound types and corresponding examples

A climax-stage absence is found in a passage from *Die Walküre*, Act 1, Scene 1 (P12/1/4–12/4/1) (Example 5.1). The climax structure is eleven measures long plus a downbeat, based on the Sieglinde motive. It is an instrumental bridge between two dialogues for Siegmund and Sieglinde, when Sieglinde goes to the storeroom to get honey mead for her wounded guest; the climax musically delivers Sieglinde’s growing feelings for the stranger. Table 5.2 illustrates the climax organization.
Example 5.1. *Die Walküre*, Act 1, Scene 1, P12/1/4–12/4/1

<table>
<thead>
<tr>
<th>Climax stage</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensification</td>
<td>mm. 1–4</td>
<td>Gradual unit reduction across four motivic statements; sequentially ascending melody; crescendo from p to f; gradual addition of instrumental groups</td>
</tr>
<tr>
<td>Highpoint</td>
<td>m. 5/1</td>
<td>Arrival 6/4</td>
</tr>
<tr>
<td>Abatement</td>
<td>mm. 5/2–12/1</td>
<td>Motivic dissolution; overall descending melodic contour; <em>diminuendo</em> in m. 5 and <em>poco rallentando</em> in m. 11; <em>sehr weich</em> (very softly) between mm. 8 and 9</td>
</tr>
</tbody>
</table>

Table 5.2. *Die Walküre*, Act 1, Scene 1, P12/1/4–12/4/1, climax organization
The climax passage starts with the intensification, rising and accelerating in agitation (*anmutig bewegt* at the beginning of the passage). The establishment of a regular, periodic pace is altogether absent, as the four motivic units across the barline gradually become shorter: Unit 1 spans seven eighth notes, shrinks to six eighths in Units 2 and 3, and four eighths in Unit 4. Even the dotted rhythmic figure characteristic of the first three units lessens in size to triplets in Unit 4.\(^{234}\) In addition to the pace acceleration, the melodic contour continuously rises through sequential progression; a *crescendo* brings *p* to *f*; and the gradual addition of instruments (bassoons in m. 2, horns in m. 3, and clarinets in m. 4) strengthens the volume, dynamics, and texture.

The highpoint occurs at m. 5/1 as a result of the co-function of multiple parameters: the progressive reduction of the unit length coincides with the downbeat; an arrival 6/4 releases the accumulated harmonic tension; the *crescendo* reaches *f*; and the agitated ascending motion in the melody lands on a relatively high note (albeit not the highest note). As such, the highpoint carries a cathartic sense of emotion, a musical metaphor of Sieglinde’s heightened feelings.

The music slowly and gradually subsides in the abatement (mm. 5/2–12/1) by means of motivic dissolution and dynamic discharge: *diminuendo* (right after the highpoint), *dolcissimo* (between mm. 8 and 9), *poco rallentando* (m. 11), and an overall descending contour decorated with small melodic twirls.

As with the interlude in “Wotan’s Farewell,” this instrumental climax structure carries

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\(^{234}\) The Sieglinde motive in Unit 4 is played by the clarinet and violin. The 7–6 suspension in the first violin on the downbeat of m. 5 suggests that Unit 4 may be interpreted as three beats long, and thus the same length as Units 2 and 3. However, the clarinet and second violin are not involved in the suspension, and land squarely on the downbeat. This alignment between metric and motivic demarcation makes a strong case for Unit 4 as two beats long.
the drama of the scene, by expressing Sieglinde’s internal world “with friendly eagerness” (*mit freundlicher Bewegtheit*). The boldness of omitting an initiation stage results in a more precipitous dynamic rise, a rushed presentation of Sieglinde’s growing passion during her brief separation from her guest. Moreover, this architectural choice falls naturally within the larger context of Scene 1: the given climax structure is a dramatic revisitation of an earlier climax, 8/1/6 plus upbeat to 8/4/1, in which Sieglinde fetches water for the just-introduced Siegmund. This climax precedent consists largely of the musical material used later for the elided climax. Yet the second climax is musically much more dynamic in parallel with Sieglinde’s growing warmth both in regard to her changed treatment of Siegmund (offering water to supplying mead) and her emotional reaction towards him. Eliding the initiation therefore not only quickens the musical climax building but also mirrors the larger musical-psychological drama of the couple’s relationship dynamic.

A passage drawn from the end of the love duet from Act 1 of Puccini’s *Madama Butterfly* (starting with R134) begins with climax-stage fusion (Example 5.2 and Table 5.3). The duet is a revisitation of Butterfly’s entrance music, “Ancora un passo,” from the beginning of Act 1 (R39-42). There, sung by Cio-Cio San and accompanying chorus, it represents Butterfly’s reserved gait as she walks to Pinkerton’s house for their wedding. In parallel with the dramatic situation, the entrance music does not build to an outstanding climactic outburst at that point; the potential dynamism in the entrance music does, however, eventually blossom in the love duet in

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235 This climax passage coincides with the onset of the cabaletta in the duet.

236 Karl Georg Maria Berg analyzes the entire duet as a symmetrical form, which comprises eight sections plus transition in the middle; Berg treats the last section starting at R134 (equivalent to the start of my climax structure) as the “highpoint and closing part of the love duet.” He also notes that this highpoint is the climactic treatment of Butterfly’s entrance music. See Berg, “Das Liebesduett aus Madama Butterfly: Überlegungen zur Szenendramaturgie bei Giacomo Puccini.” *Die Musikforschung* 38/3 (1985), 188–92.
the end of the Act. Fusion of the initiation and intensification stages in the first eight measures of
the climax structure generates a dynamic swell without inviting frantic impulsion towards an
expected goal. As the path toward the highpoint is not dramatically pushed forward or overly
emotive, the apotheosis-type highpoint that follows is thus expansive in its emotional bliss,
rather than a frenzied outpouring.

In mm. 1–8, the regularity and predictability of the phrase units fulfills the condition of
initiation. There are four two-measure units over a periodically ascending whole-tone scale in the
bass line (A₂–B₂–Db₃–Eb₃ [toward F₃]); each unit pairs the local tonic chord with the altered
dominant of the following local tonic, creating a 5–6 chain (Example 5.3). At the same time,
harmonic deviation and score indications enhance momentum, as would typically occur in an
intensification, especially from m. 6 onward: replacing the expected B♭⁺ chord with a French
sixth breaks the established harmonic pattern; *sempre crescendo ed incalzando* increases
dynamics and accelerates the pace. The tension growth is further fortified by *allargando* (m. 8)
at the end of the fusion stage, creating a delay effect. This last-minute slowing down cues the
upcoming arrival, fulfilled at m. 9 as an apotheosis-type highpoint based on the entrance theme,
now in F major, played *con calore* (“heatedly”) with *forte* dynamics, and with unison between
the two voices (*a due*) and the orchestral melody; the highpoint ends on this vocal unison
(beginning of m. 14). The abatement lacks melodic descent and dynamic withdrawal;²³⁷
ascending orchestral melody and *crescendo* dynamics instead continue throughout, with the sole
abatement parameter harmonic resolution via PAC (V₇–I).²³⁸ The non-aggressive nature of the

²³⁷ The harmony of the apotheosis melody progresses to a circle of fifths and ends with V₇, which opens the
cadential resolution.

²³⁸ Another dynamic arc ensues at R₁₃₅, which eventually concludes with a highpoint at the end of the vocal line at
the beginning of R₁₃₆. Berg argues that this final ending is the melodic highpoint, but dynamic and harmonic
initiation-intensification fusion thus finds an aesthetic mirror in the immediate aftermath of the highpoint and abatement. This positions the climax passage as *not* the absolute end of the duet, allowing an immediate transition to another climax without abandoning the progressive momentum of what preceded.

Throughout the process of the climax building, the first eight measures remain something of a grey area, resisting identification as a single climax stage. The initiation and intensification co-exist as different parameters produce the effect of each stage. The resulting dynamic building is characterized by a distinctive equilibrium between regularity and active propulsion, tempering the ecstatic path toward the highpoint with graciousness.
Example 5.2. *Madama Butterfly*, Act 1 duet, from R134 (Ricordi)
Climax stage | Measure numbers | Chord progression | Musical features |
--- | --- | --- | --- |
Fusion of initiation and intensification | Unit 1 (mm.1–2, R134) | A to F#⁺ | Path toward highpoint; sequencing over whole-tone ascent in the bass line (A–B–Db–Eb) [toward F]; crescendo ed incalzando from m. 6 on; led by Butterfly |
 | Unit 2 (mm. 3–4) | B to G#⁺ |
 | Unit 3 (mm. 5–6) | Db (C#) to French sixth chord (Fb–Ab–Bb–D) |
 | Unit 4 (mm. 7–8) | Eb to C⁺ |
Delay | End of m. 8 | Allargando |
Highpoint | mm. 9–14/2 | F (arrival of the main key) | Apotheosis |
Abatement | mm. 14–15/1 | Cadential resolution (V7–I) |

Table 5.3. Madama Butterfly, end of the Act 1 duet, fusion of initiation and intensification

Example 5.3. Harmonic progression and 5–6 chain, mm. 1–9/1 (from R134) in the Butterfly duet

The end of the duet by the adulterous couple Luigi and Giorgetta from Puccini’s Il tabarro provides an example of high region; it also contains a climax-stage fusion offering dramatic and musical contrast to that in the Butterfly climax (Example 5.4).
Example 5.4. *Il tabarro*, Luigi and Giorgetta’s duet, R69/10–71 (Ricordi)
The duet as a whole is in five-part rondo form (R57–71; A1 B1 A2 B2 A3) based on key and thematic treatment. Table 5.4 lays out the formal divisions and subdivisions, keys, and climax placement in the rondo.

<table>
<thead>
<tr>
<th>Formal division</th>
<th>Subdivision</th>
<th>Key</th>
<th>Climactic structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 (R57–64/4; mm. 1–116)</td>
<td>a (R57–61; mm. 1–70)</td>
<td>C# minor</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>a’ (R62–64/4; mm. 71–116)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1 (R64/5–65/4; mm. 117–149)</td>
<td></td>
<td>A major</td>
<td></td>
</tr>
<tr>
<td>A2 (R65/5–69/3; mm. 150–200)</td>
<td>a” (R65/5–65/12; mm. 150–157)</td>
<td>C# minor</td>
<td>Climax precedent (mm. 150–158f)</td>
</tr>
<tr>
<td></td>
<td>a (R66–69/3; mm. 158–200)</td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>B2 (R69/4–69/9; mm. 201–206)</td>
<td></td>
<td>A major</td>
<td></td>
</tr>
<tr>
<td>A3 (R69/10–71; mm. 207–232)</td>
<td>a” (R69/10–69/13; mm. 207–210)</td>
<td>C# minor</td>
<td>Climax (con calore)</td>
</tr>
<tr>
<td></td>
<td>a (R70–71; mm. 211–232)</td>
<td></td>
<td>Fusion of initiation and intensification</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High region (mm. 211–218)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Highpoint (mm. 217–218)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Abatement (mm. 219–232)</td>
</tr>
</tbody>
</table>

Table 5.4. Il tabarro, Luigi and Giorgetta’s duet, R69/10–71, climax organization

Before the climax structure appears in A3, it has a precedent; part of section A2 (a” and the beginning of a, mm. 150–158f, Example 5.5) contains the musical material that makes up the compressed initiation and intensification of the climax structure in A3. Its melodic line, supported by crescendo over triplet waves, ascends towards G-sharp5 (preceded by A5),

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239 The three A sections are in C-sharp minor; each section has two of three subdivisions, a, a’ and/or a”. The a subsection is constructed over a recurring two-measure ostinato bass, whose unyielding repetition hints at the couple’s inescapable fate. The a’ subsection is characterized by rambunctious syncopation and offbeat accents, which evoke the unruly, wild emotions of the illicit affair. The a” subsection is a drastically abridged version of a’. The somewhat pathological, morbid mood of the A sections are momentarily banished by the relaxed ambience of the B sections, whose lyrical and flowing melody in A major contrasts with the inexorable repetition of the rigid ostinato.

240 The text in the earlier scene expresses the couple’s (unfulfillable) desire to escape their current situation.
proceeding to a syntactic resolution at m. 158 (the beginning of A2/a). As a result, although A2/a” is not in itself spectacularly climactic, it does resolve into a highpoint of sorts. The following measures in A2/a, however, soon deflates and dissolves to the passage on the ostinato bass. Consequently, there is neither salient dynamic swell nor high drama in this precedent.241 The material of A2 is to be refashioned for the A3 climax, thus referential to the later climax creation.

The climax of the duet begins in section A3. It dynamizes the precedent through implementing high region; replacing stable triplet waves with an ascending arpeggio figure in clarinet, harp, and cello that marks upbeat emphasis on beat two in every measure; strengthening the dynamics; and enlarging the orchestration, especially near the final culmination.

241 Allargando and crescendo before the highpoint arrival reinforce the sense of highpoint as well.
Example 5.5. Climax precedent in Giorgetta and Luigi’s duet, R65/5–66/4 (mm. 150–161)

Indicated as *con calore* (heatedly), Luigi roars that he would kill anyone and everyone to possess Giorgetta and would make her a rare jewel fashioned from the blood that he spills. The fraught emotion in his ranting is mirrored in the doubly deformed climax. The urgent ambience
is immediately evident in the fusion of the initiation and intensification. The first four measures of the climax (mm. 207–210)—an agitated reworking of $A2/a''$ (mm. 150–157)—suggests two-measure units in an initiation. However, intensification parameters are incorporated in the second half of the second unit (m. 210): where the melody of the first unit ends with a descending third (E₅–D♯₅ [toward C♯₅]) with crescendo, that of the second unit ascends by a third (E₅–F♯₅ [toward G♯₅]); in addition, the pace is doubled, as the sweeping arpeggio ascent in the first half of each measure is stated twice by the cello within a single measure. The fused initiation/intensification is fairly rushed, but the high region (mm. 211–218) offsets this temporal compression. The high region contains four statements of a two-measure unit, which consists of an ostinato bass implying i–V7 and repeating G-sharp⁵ in the voice. Rhetorical emphasis is added by accents on every bass note and the governing forte dynamic.

Units in the high region exhibit no significant changes in their harmonies, main vocal pitches, or ostinato bass. Yet the high region contains its own highpoint in the fourth statement (mm. 217–218), which rhetorically generates a mighty apex. At m. 216, the A⁵ in the voice, an upper neighbor to the repeated G-sharp⁵, is embellished by its own upper and lower neighbors (G-sharp⁵ and B⁵); all six vocal notes are accented and are further intensified by allargando molto, which slightly drags the pace, rubato right before the highpoint. The accumulated tension is finally released at m. 217, when V7 settles on i without proceeding to the dominant harmony of the second half of the ostinato bass. The resulting highpoint, in heavily scored ff, is reinforced by the addition of cymbals, bass drum, trumpets, and bass trombone; it is a conspicuously inscribed moment following the long, strenuous labor of the high region, at last breaking the circularity of the ostinato chain.

A slow and long abatement stage (mm. 219–232) features steady, thorough
decompression through melodic descent (mm. 219–222), \textit{decrecendo} (mm. 220–222), \textit{rallentando} (mm. 224–230), and dynamic retreat to \textit{ppp}. This subsiding gesture exemplifies dynamic dissipation relying on primary (or statistical) parameters.

The idiosyncratic structure of the deformed climax in \textit{Il tabarro} builds up an extremely tense dynamic action in just four measures, yet presents an extended, cathartic explosion; the jarring effect this has on the duet as a whole, although invigorating, ultimately reinforces the intensely stifling atmosphere of the scene. Even as Giorgetta and Luigi continue their affair, they are highly aware of their surroundings, perpetually fearing discovery by Giorgetta’s husband Michele. The juxtaposition of insatiable longing and hyper-vigilance produces dramatic hypoxia and a state of suspense that is vividly rendered by the obsessive recurrence inherent to the ostinato bass. Within the confines of the form, the climax material emphasizes the riskiness of the tryst: Michele interrupts at the end of $A1/a$ but is unsuspicious; in $A2/a$, at the end of the climax precedent, Luigi interrupts to ask whether Michele has returned yet; in the climax and high region, $A3/a''$, Luigi is finally overwhelmed by his emotions, asserting himself by throwing off his restraint. In this regard, the climax at the end of the rondo is Luigi’s dramatic apex as well: the deformed climax becomes his opportunity to assert, for the first time, his genuine presence. Even if his musical-emotional outburst is destined to dissipate—as is his fate at Michele’s hands—the spotlighting of this moment by the particular climax structure effectively reflects Luigi’s ontological assertion in the most passionate manner possible in the duet.

Example 5.6 is a climax with highpoint frustration, from Santuzza and Turiddu’s duet in \textit{Cavalleria Rusticana} (P95/1/2–96/2/1). The duet is in two parts, interrupted by a ditty sung by Lola, Turiddu’s other—married—lover. In the first part of the duet (P76/3–83), Santuzza interrogates Turiddu about his infidelity; in the second part (P89/3–100/3), the couple quarrels
without resolution until Turiddu leaves in pursuit of Lola. Dynamic rise and fall is present throughout the duet; the climax containing highpoint frustration comes in the second part, during Santuzza’s entreaties to Turiddu. Used to connect two dynamic waves without conclusive cadential demarcation, the climax is trenchantly marked by its gesture of frustration. Table 5.5 shows the structure of the passage.
Example 5.6. *Cavalleria Rusticana*, Santuzza and Turiddu’s duet, P95/1/2–96/2/1 (Schirmer)
<table>
<thead>
<tr>
<th>Climax Stage</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>mm. 1–4 (2+2 mm.)</td>
<td>Presentation and sequential repetition of the referential unit in Ab major</td>
</tr>
<tr>
<td>Intensification</td>
<td>mm. 5–8 (1+1+1 m., then 1+1+1 beat)</td>
<td>Rising tension via pace acceleration over V/vi; crescendo and incalzando; chromatic ascent in the uppermost melody and accents in the voices in m. 8; Type 2 holding pattern</td>
</tr>
<tr>
<td>Highpoint frustration</td>
<td>m. 9</td>
<td>Subito pianissimo in Andante, sudden harmonic deviation to V7/V, and dropping out of all instruments except oboe and strings</td>
</tr>
</tbody>
</table>

Table 5.5. *Cavalleria rusticana*, Santuzza and Turiddu’s duet, P95/1/2–96/2/1, climax organization

The climax passage begins from a state of dynamic and emotion agitation due to the preceding waves (*grandioso con sempre cresce. passione* at the beginning); it follows the archetypal process of climax development until the expected highpoint is frustrated. The initiation launches a pair of two-measure units in 9/8 meter (mm. 1–4). In the intensification, the unit is reduced to one measure (mm. 5–7, based on the regularly repeated harmonic pattern that consists of the local dominant and its neighbor chord), then to every beat (m. 8); in this stage, ferocious dynamic energy is agglomerated through prolongation of local dominant (V/vi), acoustic reinforcement by joining of brass and woodwinds, crescendo, incalzando, and chromatic ascent of the voice, and accents on every vocal note (E5–F5–F#5 for Santuzza; G–Ab5–A5♮ for Turiddu in m. 8). This opens the door to several potential highpoints—for example, a fff V7/vi with Bb5 in the uppermost voice. However, even though Turiddu’s A5♮ at m. 8/3 successfully ascends to Bb5 in the oboe and first violin at m. 9, the promised highpoint is

242 The unit division in this analysis is based on the repeating melodic pattern in the orchestra, following musical parallelism, GPR 6 in Lerdahl and Jackendoff’s theory on grouping. This unit delineation coincides with written barlines; the vocal phrasing often goes across the barline.
frustrated by sudden dynamic withdrawal (subito pianissimo), relaxed tempo (Andante), unexpected harmonic underpinning (V7/V), and the dropping out of all instruments except oboe and strings. The fierce impetus of the initiation and intensification is abruptly deflated at the moment of highpoint frustration by the sudden failure of these parameters, despite the melodic fulfillment. The frustrated highpoint then withdraws musically, mutedly starting another dynamic wave.

Here, the use of highpoint frustration allows for continuous musical flow, both briefly suggesting a break from and reinforcing unresolved dramatic inertia. The duet is essentially a dramatic stalemate as Santuzza and Turiddu continuously repeat themselves—Santuzza insists that Turiddu return to her, and Turiddu refuses to do so—to absolutely no effect. The climax passage pinpoints this conflict in its essence: at the end of the intensification, Turiddu yells at Santuzza “Go! Go! Go!,” while she desperately cries out “No! No! No!”243 Their physical and emotional struggle ends with highpoint frustration without genuine resolution, leading them back into repetitive action, as Santuzza resumes her weeping entreaties. This recommencement involves musical withdrawal as well as becoming the start of another dynamic wave.244 While the highpoint frustration as a linking technique allows for continuous musical flow matching the unresolved dramatic conflict, its emotional effect at the moment of occurrence is harsh and poignant due to the sudden change in the music. This tough transition from one dynamic wave to

243 Hans Joachim Wagner notes “intensification toward the highpoint” in the climax passage and its preceding measures. He interprets the threefold cry of “No!” as the culmination of the two protagonists’ emotional tension. In this emotionally extreme circumstance, singing words is no longer possible, and so the voices cry out realistically. See Hans Joachim Wagner, Fremde Welt: Die Oper des Italienischen Verismo (Stuttgart and Weimar: Metzler, 1999), 90.

244 As mentioned in Chapter 1.1, footnote 10, Leonard Meyer and Richard Taruskin note the same function of sudden dynamic withdrawal in “Isolde’s Transfiguration.” Whereas the withdrawal in Tristan is heard in the middle of the dynamic propulsion, the Cavalleria example is distinguished by the withdrawal occurring at the very moment of highpoint, thus gaining enormous poignancy.
The next can be seen as an example of “rough jointing” (harte Fügung), a compositional principle that Hans Joachim Wagner finds in verismo opera.245

The cabaletta-like love duet in Act 3, Scene 4 of Francesca da Rimini exemplifies a climax succession in which the first climax lacks an abatement and the second climax a highpoint (Example 5.7). The passage in B major is an assignation between adulterous lovers. Upon returning home from war, Paolo visits his beloved Francesca, now his sister-in-law. They read together from the tale of Lancelot and Guinevere, and as with those characters, they give in to their desire for each other. The climax structure commences when Francesca reads the scene...

245 Hans Joachim Wagner coined the term “harte Fügung” (rough jointing) to indicate an abrupt change in or juxtaposition of contrasting music, emotion, and dramatic action, notably that found in verismo opera. The sudden thwart of the dynamic rise at the moment of this climax passage’s expected culmination is a “rough jointing” in terms of its non-mediated shift to a radically different phase. This creates a raw, rough, and stiff dramaturgical effect. Wagner observes this principle in Cavalleria rusticana, especially in the duet: “The opera develops rapidly, immediately unfolding the intrigue, which is based on exciting tempo and vibrant rhythm, renounces complex courses, takes place in sharp contrasts, confronts the characters in dramatic situations, and finally favors abrupt turns. The single-act form entails a tightening and intensification of the conflicts or tensions and also builds upon an extreme typification and reduction of the figure. Pietro Mascagni used this dramaturgy of rough jointing and sharp contrasts as a primary element to create the climax of the opera. The dramaturgical center of Cavalleria rusticana is a scene which is divided into many contrasting sections. Mascagni overwrites the blocks (and others) with the title “Duetto” borrowed from the traditional opera, insofar as he first suggests a formal unity or directs the expectation to scenic and musical stereotypes. However, the duet between the protagonists Santuzza and Turiddu is not a duet in the classical sense, but a tense dialogue, in which the conflicting feelings of the couple, formerly lovers, collide with each other. Consequently, the figures cannot come together dramaturgically in the duet. Although their voices unite briefly, the emotional intensification abruptly breaks in with the sense of a rough jointing.”

The original German text is: “Das Geschehen der Oper entwickelt sich rasch, entfaltet unverzüglich die auf gespanntes Tempo und beweglichen Rhythmus abgestellte Intrige, verzichtet auf komplexe Verläufe, vollzieht sich in scharfen Kontrasten, konfrontiert die Figuren in dramatischen Situationen und bevorzugt schließlich abrupte Wendungen. Die Eintaktige Form zieht eine Verknappung und Intensivierung der Konflikte bzw. Spannungen nach sich und baut darüber hinaus auf eine extreme Typisierung und Reduktion der Figur. Diese Dramaturgie der harten Fügung und schroffen Kontraste hat Pietro Mascagni vorab zur Gestaltung des Höhepunktes der Oper eingesetzt. Das dramaturgische Zentrum von Cavalleria rusticana ist eine Szene, die in mehrere kontrastierende Abschnitte unterteilt ist. Mascagni überschreibt die Blöcke u.a. mit der der traditionellen Oper entlehnten Bezeichnung Duetto; insofern suggeriert er zunächst eine formale Geschlossenheit bzw. lenkt die Erwartungshaltung auf szenische und musikalische Stereotypen. Doch bereits das Duett zwischen den Protagonisten Santuzza und Turiddu ist kein Duett im klassischen Sinne, sondern ein gespannter Dialog, in dem die unterschiedlichen Gefühle des Paares, das ehemals ein Liebespaar war, aufeinanderprallen. Dramaturgisch konsequent können sich die Figuren nicht zum Duett zusammenfinden, und als sich die Stimmen dennoch kurzzeitig vereinen, bricht die Gefühlsteigerung im Sinne einer harten Fügung abrupt ab.” See Wagner, Fremde Welt: Die Oper des Italienischen Verismo, 61.
in which Lancelot and Guinevere kiss; Paolo and Francesca’s kiss begins soon after and takes up much of the climax.

Example 5.7. *Francesca da Rimini*, Act 3, Scene 4 duet, R66–68 (Ricordi)
Example 5.7. *Francesca da Rimini*, Act 3, Scene 4 duet, R66–68 (cont.)

The climax passage is a rearrangement of the couple’s encounter music from the end of
Act 1, now geared toward the grand peroration. The first climax, Climax A, is incomplete; its abatement is overridden by the premature occurrence of the more forceful Climax B. Table 5.6 illustrates the organization of both climaxes.

<table>
<thead>
<tr>
<th>Rehearsal number</th>
<th>Climax succession</th>
<th>Climax stage</th>
<th>Harmony</th>
</tr>
</thead>
<tbody>
<tr>
<td>R66</td>
<td>Climax A (mm. 1–14/1)</td>
<td>A/initiation (mm. 1–8; 4+4 mm.)</td>
<td>First unit: I–IV–I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/intensification (mm. 9–11; 1+1+1 m.)</td>
<td>I to VI#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/delay (mm. 12–13)</td>
<td>IV (Type 3 holding pattern)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/highpoint (m. 14/1)</td>
<td>I6/4 with ^6–^5 suspension</td>
</tr>
<tr>
<td>R67</td>
<td>Climax B (mm. 14–28)</td>
<td>B/initiation (mm. 14–17; 2+2 mm.)</td>
<td>First unit: I6/4–ii6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B/intensification (m. 18)</td>
<td>Stepwise descent in the bass line; ends with v7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B/highpoint absence (m. 18/4)</td>
<td>n/a (silence)</td>
</tr>
<tr>
<td>R68</td>
<td></td>
<td>B/abatement (mm. 19–28)</td>
<td>IV–V–bII–I (Phrygian cadence)</td>
</tr>
</tbody>
</table>

Table 5.6. *Francesca da Rimini*, Act 3 duet, R66–68, climax organization

The A/initiation is two four-measure units in *largo molto* tempo. The first unit (mm. 1–4) introduces the recurring theme—now played by solo violin and solo cello—over plagal harmonic motion. The second unit (mm. 5–8) embellishes the preceding by adding a seventh to IV and melodic elaboration.

A/intensification (mm. 9–11) is created by gradual harmonic departure, *crescendo*, and a

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246 At the end of Act 1, when Francesca and Paolo meet for the first time, a flowing melody in D major is played by solo cello over strings. The first eight measures of the cello solo provide the thematic material of A/initiation in the climax structure, and the following two measures that of A/intensification. Bringing back this material for the climax at the end of the Act 3 duet recalls the lovers’ first meeting, the point at which their romantic feelings first emerged.

247 The analysis of climax succession in this example mainly refers to the orchestra, the principal purveyor of musical material; the vocal part remains either declamatory or silent.

248 The climax passage features subdominant-type chords, such as IV, IV7, ii, ii6 and bII.
shrinking of the unit size to one measure. There are three one-measure units: the first (m. 9) has an ascending sixth (F#–D in octave doubling) in the orchestral melody over the tonic; the second (m. 10) contains melodic and harmonic elaboration over tonic prolongation with interpolation of ii6/5; the third (m. 11) contracts the interval to a fifth (G#–D#) in the melody over VI# and crescendo.

The soaring tension, however, is temporarily counteracted by a highly dramatic two-measure A/delay (mm. 12–13), on the subdominant harmony with a stationary G-sharp in the uppermost melody. The delay is created by increasing the unit size and through performance indications on the score. Although there is an initial accelerando at m. 12, it eventually transitions to allargando at the end of m. 13; A/delay thus spans a range of tempos over just two measures, slowing the pace enormously. The tension seems to culminate at the highpoint (m. 14), when the music proceeds to I6/4 with \(^6-^5\) suspension creating a plagal motion. However, the tonic resolution does not exude a full sense of arrival, and not simply because of its inversion (I6/4): the chord actually becomes the beginning of Climax B through climax surmounting.

Climax B is more dynamic than Climax A on multiple levels. B/initiation accelerates the pace in relation to A/initiation, from two four-measure units to two two-measure units (mm. 14–15 and 16–17); B/intensification is a single measure (m. 18). In addition, the transition between sections in Climax B is fluid and more connected; the boundary between B/initiation and B/intensification is obfuscated by linked gestures, making m. 17 into a sort of overlap area. On the one hand, m. 17 is a slightly altered repetition of the second half of the first unit in terms of orchestral melody (oscillation between C#–G# in the first unit and C#–G in the second unit) and harmony (ii6 in the first unit, ii6 in the second). On the other hand, mm. 17–18 can be grouped together through the newly introduced dotted rhythmic figure (piccolo, violin, and
viola), which enables seamless transition into the one-measure intensification (m. 18). Likewise, the bass line mercilessly descends, *accelerando*, until it hits v7 in m. 18. This uninterrupted drive exerts supremely concentrated momentum, reflecting the characters’ uncontrollable, magnetic attraction to each other.

Yet this drive is abruptly halted by an eighth-note rest with fermata at the end of m. 18. The fierce intensification begs for an acoustically formidable highpoint, but this unexpected silence and musical hollowness destroys any possibility for achieving a more compelling highpoint. While the acoustic effect of this highpoint absence is drastic and surprising, the moment can be read dramatically as a gesture of sublime transcendence. Instead of a potentially banal loud sound, this inaudibility rises above the sensual sphere, metaphorically conveying the protagonists’ union as beyond earthly lust; thus the highpoint provides pure musical consummation. Even as the successive rise from Climax A to Climax B gives voice to the couple’s passion and ultimate carnality, the non-phenomenal highpoint aurally—if only temporarily—washes out the stain of lechery and adultery.

In accordance with this dramatic shift, the abatement (mm. 19–28) does not simply ease the tension, but shifts the drama from the secular to the sacred realm—an aura enhanced by the angelic off-stage chorus, a hovering thematic fragment in solo violin from the end of A/delay and the beginning of B/initiation, and by *allargando* and *decrescendo*. These subsiding gestures converge towards a gossamer tonic triad with *pianississimo*, fermata and final rests (mm. 26–28). With I6/4 hanging in the air like a distant echo, the music seems to float unendingly.

Within the whole duet, the surmounting gesture of dynamism musically embodies the gradual bridging of the emotional and physical distance between the characters, motivated by the
tale of Lancelot and Guinevere. The ascending force of the double dynamic arcs propels the music forward the way that the couple’s unquenchable attraction propels them toward their kiss. The sudden rejection of this momentum is thus even more shocking given the magnitude of energy generated through climax surmounting. This climax deformation finds its structural ground in the unique dramatic situation, where the dynamics of romantic passion drive towards an edge only to become sublimely transfigured.249

The end of the Act 2 duet for Chenier and Maddalena in Andrea Chenier includes climax nesting (Example 5.8), a compound structure whose expanded delay constitutes a smaller climax.250 Shortly before the onset of the Terror following the French Revolution (1794), Chenier and Maddalena are reunited. Despite the couple’s opposing social and political statuses—Chenier is involved in revolutionary action while Maddalena’s aristocratic family and fortune have been destroyed—they passionately express full-hearted joy in their reunion.

249 There are many parallels between Tristan und Isolde and Francesca da Rimini, in terms of plot, musical architecture, and specific quotes and allusions. The climax structure discussed here is one such correlation. Its dramatic circumstances are in many ways a mirror—eventually distorted—of the love duet in Act 2 of Tristan. The music, however, relates closely to the “Isolde’s Transfiguration.” Both climax structures have B-major, prevailing plagal motion, highpoint on the subdominant, gradual wearing-off gesture after highpoint, and a poetic ending (F-sharp at the bottom in Francesca and that at the top in “Isolde’s Transfiguration”). Zandonai himself acknowledged the kinship between Francesca and Tristan during the composition process, saying that “these days, I’ve written the first scene, which to my eyes has come out a little jewel of color, freshness and clarity…Let us hope that the remaining acts are equal in merit to the first. Who knows, perhaps an Italian Tristan und Isolde is being born?” See Allan Mallach, The Autumn of Italian Opera (Boston: Northeastern University Press, 2007), 333.

250 The first measure of the duet starts with tranquillo at P114/2/1 in the core.
The climax in G-flat occurs in the middle of the duet’s *cabaletta* section (mm. 114–187, “Ora soave, sublime ora d’amore” in *tranquillo*), following the traditional formal divisions.\(^{251}\)\(^{252}\) The *cabaletta* is divided into three parts; each begins with a theme in E-flat major, set to the same text, first heard at the end of Chenier’s entrance aria in Act 1, “Un di all’azzurro spazio” (Example 5.9).

\begin{example}
\centering
\includegraphics[width=\textwidth]{example.png}
\caption{The theme in E-flat major at the end of Chenier’s entrance aria, “Un di all’azzurro spazio,” 56/4/2–57/2/3}
\end{example}

\(^{251}\) Again, although Giordano did not designate a key signature, the key here is certainly Gb major. Measure numbers are counted from the beginning of the duet. The *cabaletta* begins in the fourth measure of R28.

\(^{252}\) The division of the three phases of the *cabaletta* is based on textual repetition and who begins the phase in the duet.
Part 1 of the *cabaletta* (mm. 114–152) is led by Chenier, and consists of four four-measure phrases and one seven-measure phrase. The first two phrases are identical; the third phrase presents new material, which is loosely sequenced in the fourth phrase; the last phrase is a transition to the next part. Part 2 (mm. 153–171) is led by Maddalena. The couple sings the recurring Chenier theme in unison in Part 3 (mm. 172–187). The climax structure begins at Part 2 (initiation, intensification, delay) and continues through Part 3 (highpoint, abatement). Table 5.7 shows the organization of the climax structure within the *cabaletta*.

<table>
<thead>
<tr>
<th>Cabaletta</th>
<th>Climax stage</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1</td>
<td>n/a</td>
<td>mm.114–152</td>
<td>Chenier theme led by Chenier</td>
</tr>
<tr>
<td>Part 2</td>
<td>Initiation</td>
<td>mm. 153–160 (4+4 mm.)</td>
<td>Chenier theme led by Maddalena; symmetrical phrases with mild agitation in the second</td>
</tr>
<tr>
<td></td>
<td>Intensification</td>
<td>mm. 161–164 (1+1+1+1 m.)</td>
<td>Pace diminution; sequential melodic rise over dominant pedal (Type 2 holding pattern)</td>
</tr>
<tr>
<td></td>
<td>Delay (Sub-)climax</td>
<td>mm. 165–171</td>
<td>Nested climax over dominant prolongation (Type 3 holding pattern)</td>
</tr>
<tr>
<td>Part 3</td>
<td>Highpoint (Apotheosis)</td>
<td>mm. 172–175</td>
<td>Chenier theme sung by Chenier and Maddalena together, treated as an apotheosis-type highpoint</td>
</tr>
<tr>
<td></td>
<td>Abatement</td>
<td>mm. 176–187</td>
<td>Chenier theme (partial); cadential resolution</td>
</tr>
</tbody>
</table>

Table 5.7. *Andrea Chenier, Act 2 duet, cabaletta divisions and climax organization*

The eight-measure initiation (mm. 153–160) comprises two four-measure units, marked by textural phrase and half cadences (on V7/vi and V4/3 respectively). The first unit rests on the recurring Chenier theme, drawn from his entrance aria in Act 1; the second phrase introduces new musical material, most notably a syncopated rhythmic figure (quarter–half–quarter) in the orchestra which, with *animando*, continues through the next stage. The unit is reduced to a single measure in the four-measure intensification (mm. 161–164); the violin melody ascends sequentially at every measure, *sempre animando e crescendo*, over a dominant pedal (Type 2...
holding pattern).

This dominant prolongation stretches out further in the seven-measure delay (mm. 165–171, Type 3 holding pattern). Yet an embedded climax in the orchestra takes the delay beyond harmonic stasis in an extraordinarily exciting journey to the highpoint. Table 5.8 maps the organization of the sub-climax.

<table>
<thead>
<tr>
<th>(Sub-) climax stage (mm. 165–171)</th>
<th>Measures</th>
<th>Musical features</th>
</tr>
</thead>
<tbody>
<tr>
<td>S/initiation mm. 165–168 (2+2 mm.)</td>
<td>Two-measure referential unit (common-tone diminished seventh and V7), and its repetition; syncopated rhythmic figure every measure</td>
<td></td>
</tr>
<tr>
<td>S/intensification mm. 169–171</td>
<td>Pace acceleration via unit reduction (1+1+1 m.) and arpeggiation of V7, each beat; register widens</td>
<td></td>
</tr>
<tr>
<td>S/delay End of m. 171</td>
<td>Rallentando</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.8. Andrea Chenier, Act 2 duet, mm. 165–176, organization of (sub-)climax within large-scale delay

The S/initiation (mm. 165–168) contains two two-measure referential units. Each unit consists of two one-measure gestures, the first outlining a descending augmented fourth (G–Db) in the orchestral melody over a common-tone diminished seventh chord, the second a descending perfect fifth (Ab–Db) over V7; the upper note of each descending interval is preceded by an upper appoggiatura. Each measure has the syncopated rhythmic figure described above.

S/intensification (mm. 169–171) amplifies tension through the collaboration of structural and rhetorical parameters: the second half of the referential unit recurs three times, each time as a one-measure unit. The bass further quickens the pace with a descending accented arpeggiation of V7 at every beat (alla breve) in a group of brass. The gradually widening distance between the melody and the accompaniment, crescendo, gives rise to a sense of spatial expansion, signaling impending highpoint.
However, a *rallentando* and vocal fixation on D-flat at m. 171 momentarily slows the pace, creating *S/delay* within the large-scale delay.\(^{253}\) The towering intensity generated by this doubled delay concludes with an exponentially more powerful highpoint, entering at m. 172 as a pinnacle for both the local and the large-scale climax. Sung by Chenier and Maddalena in unison, supported by full orchestra *fortissimo*, *sostenuto*, and with accents, the highpoint is an apotheosis, the most imposing rendition of the recurring Chenier theme.

The recurring theme appears one more time at m. 176, creating expectation for an exact repetition of the previous thematic apotheosis, but it becomes the start of an abatement moving toward closure through cadential resolution (V7-I) and momentary dynamic decrease. The final tonic chord, however, is resolutely *fortissimo*, overriding straightforward dissipation with a powerful peroration gesture. This denouement matches the couple’s enterprising spirit and reflects the continued reassurance they find in one another.

The climax structure at the end of the Chenier duet offers a magnificent conclusion for the love duet, producing a larger-scale *crescendo* gesture: Part 2, brimming with the tension and emotional ecstasy of the initiation, intensification, and delay (including sub-climax), feels much greater than Part 1; Part 3 finally reaches the ebullient apex. The expanded climax, multiple dynamic swells, and extravagantly drawn-out delay musically reinforce the grand dramatic exposition of Maddalena and Chenier’s resolutely hopeful reunion.

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\(^{253}\) Rhetorical delay in the nested climax actually starts at the end of the S/initiation, with *allargando* at m. 168, the moment of the brass entrance; thus there is a gradual deceleration from this point to the *rallentando* at m. 171. Yet this does not conflict with the intensification parameters because of the different parametric categories. *Allargando* here is executed gradually, and so rhetorical effect does not immediately override the pace acceleration brought by the change of unit size.
CONCLUSION

Inspired by the psychological and sensual journey of the climax experience, the climax archetype approaches musical form as a dynamic, fluid progression. It allows for a logical explanation of the dynamic shaping heard in Wagnerian and verismo operas, which otherwise might be treated as formless or passed over as musical prose. The dynamic intensity characterizing this repertoire is not a mere aural phenomenon; there are structural bases and deliberate compositional techniques used for its creation. The climax archetype is designed to illuminate these.

The operation of the climax archetype reveals an organic lifespan of tension growth and decay. Although introducing labels to identify climax stages is necessary for clarity and convenience, the climax structures discussed are in no way limited to the sum of these parts and should not be reckoned according to sectional formulas. The application of the climax archetype in analysis therefore does not dissect a sound continuum but elucidates the fluid channeling of musical tension in sensible language. Indeed, the crux of the climax theory lies in its forward-moving nature, tracing the propulsion that brings such an energetic and passionate sound to Wagnerian and verismo operas.

The climax archetype has been demonstrated as applicable to both traditional and non-traditional forms, and as contributing significantly to the understanding of Wagnerian and post-Wagnerian formal innovations. For example, even as ABA’, rondo, and cabaletta provide overarching scaffolds in Italian opera, their standard structure can embrace formal deviation; this flexibility calls for a new analytical paradigm rather than a sweeping dismissal of their application under the rubric of “dissolution.” This is even more important for approaching
Wagner’s formal radicalism; existing operatic forms imported from the Italian tradition are woefully inadequate in approaching dynamic passages from his music dramas.

The climax prototypes discussed in this dissertation all entail dynamic momentum to various degrees, from accidental byproduct to essential attribute. Of these models, groundswell is the closest kin to the climax archetype, in that both are directly concerned with the surge and decay of intensity, specifically in opera. However, there are constraints to relying on groundswell and other models for the analysis of post–bel canto Romantic operas. Broadly speaking, the dissolution or flexible application of conventional forms in verismo operas and prose-like form in Wagner’s works leads to overwhelming directionality in the musical playing-out; these formal structures will tend to dispense with the mechanical repetition of a whole passage, as commonly found in groundswell. Furthermore, the limitation of groundswell to the final section of ensemble finales ignores dynamic surges found elsewhere in post–bel canto Romantic operas.

As demonstrated in the analyses in Chapters 4 and 5, the climax archetype also incorporates some aspects of Kurth’s climax and highpoint, Huron’s climax, Cone’s apotheosis, Meyer’s syntactic and statistical climaxes, Agawu’s high region, Hatten’s arrival 6/4, and Gossett’s holding pattern. As the first scholar to delve into musical dynamism as a subject of theory and analysis, Kurth provides the foundation for the study of climax and highpoint from a listening-based experience, in which the climax archetype is grounded. Specifically, Kurth’s explanation of dynamic rise and fall, reifying the pattern from a solely aural phenomenon to a form (more accurately, “forming”), is an underlying imperative of the climax archetype. Kurth’s emphasis on the holistic perception of a dynamic process as opposed to self-contained individual stages—the Gestalt principle—is the perceptual attitude that climax archetype advocates.
Moreover, Kurth’s organization of the dynamic wave into phases—initiation (*Ansatz*), intensification (*Steigerung*), highpoint (*Höhepunkt*), and deintensification (*Rückentwicklung*)—and their overall function in the course of dynamic progression, are directly transferred to the climax archetype. Other elements adopted from Kurth include intensification parameters (e.g., dynamic increase, textural reinforcement, melodic ascent, rhythmic animation, and so on, and their co-function), metaphysical interpretation of a soft highpoint, and the concept of surmounting.

On the other hand, the climax archetype pursues a more down-to-earth approach in explaining dynamic phenomena. Kurth’s emphasis on continuous progression in dynamic waves seems to defy parsing between constituent phases of the waves; apparent contradictions occur within individual phases, and demarcation between adjacent phases may be vague. In contrast, each constituent stage of the climax archetype is defined through its unique parameters and functions in the dynamic process. For example, Kurth considers dynamic juxtaposition a critical event both in intensification and the highpoint area, while dynamic back-and-forth is rarely observed during the intensification stage of the climax archetype; the continuous increase of sonic intensity in the climax archetype is more directional and progressive throughout. Another distinguishing point is the formulation of highpoint. Kurth’s highpoint is a relatively elongated phase encompassing subphases—the moment of discharge of highest energy, the immediate aftermath, and continuing reverberations—while highpoint in the climax archetype is

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254 Kurth’s discussion of climax and highpoint is pervaded by philosophical reflection and metaphysical language. Furthermore, he often omits now-conventional means of presentation such as analytical charts, signs, and score examples. As a result, how Kurth’s principles of dynamic motion precisely materialize is sometimes elusive. This is not just a concern for his climax theory, but seems prevalent in Kurth’s treatment of form in general. For instance, Rothfarb point out that “when commenting on form, Kurth does not assemble all of his observations into a practical analytic method […] He himself does not always fully develop his ideas theoretically or analytically.” Rothfarb, *Ernst Kurth as Theorist and Analyst* (Philadelphia: University of Pennsylvania Press, 1988), 211.
brief—the salient moment where dynamic momentum reaches its culminating point. Similarly, Kurth’s deintensification is not the same as abatement in the climax archetype, since he invests the final stage with the potential for the beginning of a new dynamic wave, in addition to the function of dissipating accumulated energy. Also, the climax archetype does not seek to impose a higher formal level in understanding musical dynamism, as is attempted in Kurth’s tripartition (slow, long; fast, short; slow, long). In other words, the climax archetype deals with dynamic phenomena as a matter of fact, rather than a transcendental tendency operating above and beyond dynamic motion.

Post-Kurthian scholars have equally influenced my concept of climax archetype. Huron’s three criteria of climax (high pitch, loud dynamic level, and relatively dissonant sonorities) are adopted for the archetype’s primary parameters of intensification and highpoint, while his concept of delay is incorporated in the optional delay stage of the climax archetype. Cone’s apotheosis characterizes a possible presentation of highpoint which is especially relevant to verismo operas. The mechanism of Meyer’s statistical climax and its parameters provide bases for the rising phase of the climax archetype, while the closing function of his syntactic climax can be observed in the abatement stage of the climax archetype. Agawu’s high region is treated as a climax deformation; Hatten’s arrival 6/4 appears at the moment of apex in some of my analyses. Finally, holding pattern—discussed by Gossett, Gable, and Hepokoski—can be categorized according to where and how it occurs: the initiation, intensification, or delay stages of the climax archetype.255

Yet the climax archetype goes beyond simply adopting—or adapting—previous models

255 Respectively, these are: 1) holding pattern with no increase in dynamic momentum; 2) holding pattern with increasing dynamic momentum; and 3) holding pattern with increasing dynamic momentum and pace deceleration.
and concepts. Of particular importance to the repertoire analyzed in this dissertation, the climax archetype sometimes involves processing previously heard leitmotivs (Wagner) or recurring themes (verismo) for a final climactic conclusion. The recurrence of previously heard materials creates aural and emotional impact through the contrast of sonic intensity between previous, non- or less-climactic statements (such as climax precedents in some of the analyses) and the often monumental peroration heard in the climax archetype. Thematic and motivic reprocessing brings architectural coherence as well as dramatic continuity. Its function thus goes beyond pompously wrapping up a section or movement; applying the climax archetype allows for consideration of this broader and deeper investment in thematic recurrence and dramatic narrative.

The climax archetype generally can be said to appear whenever growing dramatic or psychological intensity meets a corresponding musical realization. Notably, the climax archetype is not prescriptively coordinated with particular dramatic moments, although there are definite tendencies regarding its placement. In Italian opera, the climax archetype frequently occurs toward the end of a movement in an aria or duet—for example, in the returning section of an ABA' (ternary), in the final section of a rondo, or in the cabaletta or cabaletta-like conclusion of a duet. The dramatic effect of the climax structure naturally invites such placement: the return of a recurring theme as an apotheosis-type highpoint within a climax produces the dynamic force necessary for a grand conclusion, while its premature revelation would deflate the large-scale musical drive and dramatic tension for the remainder of the movement. As with Meyer’s statistical climax, the frequent appearance of the climax archetype toward the end of a larger

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256 Corresponding examples analyzed in this dissertation are: climax archetype in the returning section of ternary form (“La mamma morta” from Andrea Chenier); climax variants in the final section of rondo (the duet from Il tabarro), cabaletta (the Act 1 duet from Madama Butterfly and the Act 2 duet from Andrea Chenier), and cabaletta-like conclusion (the Act 3 duet from Francesca da Rimini).
structure is an effective means of producing dramatically forceful—even cathartic—structures.

However, this does not exclude other possibilities for climax placement, especially in Wagner. The climax archetype can be found wherever the music surges in parallel with drama and emotion. For example, “Wotan’s Farewell” is heard approximately 1/5 of the way through the stretch comprising his monologue and the following Magic Fire music; likewise, the climax structures of the two orchestral interludes in Die Walküre, Act 1, Scene 1, demonstrate that climaxes may occur wherever the dramatic content calls for climactic musical realization—in this case, growing romantic passion.

The flexibility of the climax archetype encompasses textual considerations as well. While this dissertation applies the climax archetype to the analysis of vocal music, in principle it is defined exclusively through its musical-kinetic quality. This is already true of groundswell, a paradigm specific to opera, where textual organization does not count toward the division into phases. (A groundswell is usually set to text that has already been heard at least once.) Nonetheless, the climax archetype may be applied to both instrumental and texted passages; textual elements may, but need not, serve as an identifying criterion or cue for phrase grouping.

The significance of the climax archetype encompasses issues of musical style and genre, especially regarding operatic verismo. The archetype offers a musical dimension to the traditional implication of the term “verismo” beyond its conventional translation, “realism.” Operas generally categorized as verismo do not necessarily present realism in line with the Italian literary movement of the same name and era; instead, as Andreas Giger notes, verismo opera can be best understood as breaking conventional parameters—of harmony, musical form,
dramaturgy, character, and production. While Wagner is certainly one of the inspiring figures for the verismo movement in opera, writings on verismo opera typically emphasize formal dissolution, chromatic sonorities, parallel harmonic progressions, and the use of prose-style texts while substantive musical-architectural considerations have been ignored. The climax archetype provides a shared structure linking Wagner and the verists, effectively complementing Giger’s broadly defined concept of operatic verismo.

It would be folly to argue for the universal applicability of climax theory to every dynamic wave in even one genre, let alone every genre. There are countless ways of creating dynamic curves, and countless ways of composing opera in the wake of the post-bel canto idiom. In addition to the climax archetype and its deformations discussed in this dissertation, many other variations in dynamic shaping have been integrated within traditional forms, and have even supplanted those forms according to the demands of a drama. Nevertheless, the climax archetype offers an exemplary paradigm for further exploration of the diverse dynamic arcs in Romantic and post-Romantic music, especially opera, as its architectural principle addresses what late Romantic opera musically embraces and emphasizes, not what it rejects and dissolves.

Finally, the climax archetype offers many prospects for future research. Issues of musical-dramatic relationships are particularly intriguing. A dynamic structure within a scene, act, or full opera can be illuminated by examining the interaction between a musical climax structure and the narrative-dramatic trajectory. Although the examination of literary structure embodied in text, prosody, and drama requires thorough study of the libretto, which is beyond the scope of this dissertation, an analysis of the relationship between musical and

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literary/dramatic climaxes could shed light on holistic interpretations of larger structures within a unified and coherent dynamic perspective. At the same time, the looseness of text as a parameter in the climax archetype allows the model to be considered for analyzing non-operatic and non-dramatic genres as well. Consequently, the climax archetype is not a definitive point within the study of climax and highpoint. Rather, it sets a cornerstone for further research on the topic, encouraging scholarly attention to the seemingly intuitive but ultimately logical process of musical dynamism.


Lorenz, Alfred. Das Geheimnis der Form bei Richard Wagner.


Marvin, Roberta. “Aspects of Tempo in Verdi’s Early and Middle-Period Italian Operas.” In


