

## Subverting the Verse–Chorus Paradigm: Terminally Climactic Forms in Recent Rock Music\*

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### ABSTRACT

This article defines and demonstrates a formal type I call “terminally climactic forms.” These forms, which appear frequently in rock songs after 1990, are characterized by their balance between the *expected* memorable highpoint (the chorus) and the thematically independent terminal climax, the song’s actual high point, which appears only once at the end of the song. After presenting the rationale for such forms, including new models of rock endings and climaxes, the article presents archetypes for three classifications of terminally climactic forms: two-part, three-part, and extended. Each archetype is supported by analytical examples from the post-millennial rock corpus.

In his primer on rock song form, John Covach writes: “In a verse-chorus [form] ... the focus of the song is squarely on the chorus. ... [T]he verse serves primarily to prepare the return of the chorus.”<sup>1</sup> Similarly, Walter Everett notes that “[t]he pop song typically alternates verses and choruses. These will usually be balanced by one or two statements of a contrasting bridge.”<sup>2</sup> These commonly held axioms about rock song form represent an archetype I call the “verse–chorus paradigm,” a perception that acts both as a methodological constraint on analysts, and as a compositional constraint on songwriters. While this paradigm faithfully models the music for which it was intended (that being conventional rock from about 1957 to 1990), many songs from the past 10 to 15 years are not structured in this way.<sup>3</sup> Rather than relying on a repeated chorus, these songs seem to be directed toward a single moment of new material at the end. This novel and refreshing model for organizing songs is what I call terminally climactic form (TCF), where not a chorus but a single, thematically independent section placed at the end functions as the song’s most memorable moment. TCF’s unique dramatic shape derives from tension between the expected highpoint (repeated chorus) and the climactic ending, the song’s actual highpoint.

In conventional rock song forms, there are, generally speaking, two ways to end a song: by recapitulating the verse or chorus, or by appending an outro or coda to the end of either section. By contrast, experimental rock artists regularly end songs with completely new material designed to be more memorable than anything previously presented—the terminal climax. Terminal climaxes often display chorus-like characteristics, though they are thematically independent sections distinct from the actual chorus, appearing only once at the end of the song, *ex nihilo*.<sup>4</sup> Usually, terminal climaxes present a repeated lyrical/melodic hook over a section that is marked by a dynamic, rhythmic, or harmonic change.<sup>5</sup> These dramatic endings come about through any combination of amplitudinal climax, harmonic modulation, and changing meter.

Perhaps the most famous precedent for such an ending occurs in the memorable lyrical/melodic hook that closes the Beatles' "Hey Jude" (1968).<sup>6</sup> The song's first half can be heard as a traditional AABA form (with an added BA), reminding us of the American songbook's direct influence on the Beatles. Following this traditional structure, we hear a terminally climactic second half that consists of 19 mantra-like repetitions of the lyrical/melodic hook.

It is important to distinguish this from a related, but distinct song type heard throughout rock history, one that Mark Spicer calls "cumulative form."<sup>7</sup> Journey's song "Don't Stop Believin'" (1981) may illustrate the difference most concisely. The difference between TCFs such as "Hey Jude" and cumulative forms such as "Don't Stop Believin'" is that the latter's ending relies largely on recapitulatory material, while the former's does not. I hear the ending of Journey's song as so powerful because it recapitulates salient heard gestures from earlier in the piece—namely the signature piano/guitar riff and overall harmonic progression—to accompany the sing-a-long ending on the song's title in such a way that the cumulative effect of these elements, both old and new, is greater than the sum of its thematic parts. In "Hey Jude," however, the ecstatic TC ending is a product of non-recapitulatory surprise, rather than the re-presentation of previously heard thematic material.

Though TCFs can be found (with less frequency) in a few experimental songs of the late 1960s, including the Beach Boys' "Cabinessence" (1969) and Crosby, Stills, and Nash's "Suite: Judy Blue Eyes" (1969),<sup>8</sup> the present study focuses on documenting these forms in post-millennial rock music, thereby addressing a genre left relatively unaddressed by pop-rock music theory.<sup>9</sup> My aim in this article is to impart a methodology for analyzing TCFs, while

hopefully demonstrating the necessity and applicability of my theoretical formulation through analysis of several recent songs. After explaining the rationale for these structures, I present three archetypes for TCFs: two-part, three-part, and extended.

Before analyzing these experimental forms, it is necessary to frame exactly what sets them apart from conventional formal practices, that is, what makes them experimental.<sup>10</sup> TCFs play with the established norms of the verse–chorus paradigm by restructuring two pivotal formal elements: climaxes and endings. Since understanding these two elements will aid the reader in recognizing these modifications, I first present models of climax and ending suitable for rock formal analysis. This exposition provides a rationale for the need to formalize TCFs, and may also facilitate applicability for those who wish to perform similar analyses.

#### ENDING FUNCTIONS IN ROCK MUSIC

Sections within a rock song can serve one of three functions: initiating, medial, or concluding.<sup>11</sup> While some sections may serve different functions within different songs (for example, verses can function as initiating, mediating, or concluding), others are less flexible. An introduction does not usually end a song, and a bridge typically only serves medial function.<sup>12</sup> Sections that regularly end songs may be separated further into four categories based on whether they function within the dramatic structure of the song as autonomous or non-autonomous,<sup>13</sup> and whether they contain recapitulatory or non-recapitulatory material.<sup>14</sup> Recapitulation can easily be defined in terms of thematic dependence, and non-recapitulation in terms of thematic independence. My autonomous/non-autonomous dichotomy, on the other hand, has to do with whether a section functions more like a primary thematic unit within the song (for example, a verse or chorus), or whether it functions more like a transition (for example, an introduction, bridge, or coda). Plotting these two dichotomous pairs on a two-by-two table results in the four logically possible ending types shown in Example 1.

Example 1 uses capital italicized letters (*R*, *A*) to represent recapitulation and autonomy, and lowercase italicized letters (*r*, *a*) to represent the absence of those elements. While the concluding formal types  $\langle R, A \rangle$ ,  $\langle R, a \rangle$ , and  $\langle r, a \rangle$  may all be represented by familiar, conventional structures (the names of which are shown in parentheses in Example 1), the type  $\langle r, A \rangle$  is far less common, and forms the basis of all formal types I will discuss in this article.

Its autonomous nature distinguishes it from a coda, and its non-recapitulatory nature distinguishes it from a concluding chorus or verse. In fact, these endings function much like the first dramatic arrival of a chorus, which, though not an ending, is both autonomous and non-recapitulatory. Unlike recapitulatory choruses, however, terminal climaxes are the only sections that can accurately describe the apotheosis one experiences upon hearing such loud, climactic music only once at the end of a song.<sup>15</sup> But before addressing these climactic endings, a more thorough understanding of rock climaxes will be helpful.

	Recapitulatory ( <i>R</i> )	Non-Recapitulatory ( <i>r</i> )
Autonomous ( <i>A</i> )	< <i>R, A</i> >=Recapitulatory and Autonomous (concluding chorus or concluding verse)	< <i>r, A</i> >=Non-Recapitulatory and Autonomous (terminal climax)
Non-Autonomous ( <i>a</i> )	< <i>R, a</i> >=Recapitulatory and Non-Autonomous (outro)	< <i>r, a</i> >=Non-Recapitulatory and Non-Autonomous (coda)

EXAMPLE I. *Four concluding section types.*

## SECTIONAL CLIMAX IN ROCK MUSIC

Climaxes are ubiquitous among pieces of music in nearly every Western genre. It is thus surprising that so few theorists have addressed this phenomenon with any rigor. Perhaps climaxes are so intuitive that they present no need for formalization, or perhaps the formal properties of climax are so elusive that they resist any attempt at concrete systemization. Kofi Agawu laments the lack of theoretical engagement on the topic:

Further survey of the literature shows that writers who concern themselves with notions of climax are not the “serious” theorists ... but rather those who are addressing a non-specialist audience in such documents as program notes, books on music appreciation, or opera guides. But surely it is ironic that our most ordinary and substantive experience functions only minimally in attempts to unravel the structure of music, suggest ways of hearing, and, through these, deepen our emotional experience of the works we analyze.<sup>16</sup>

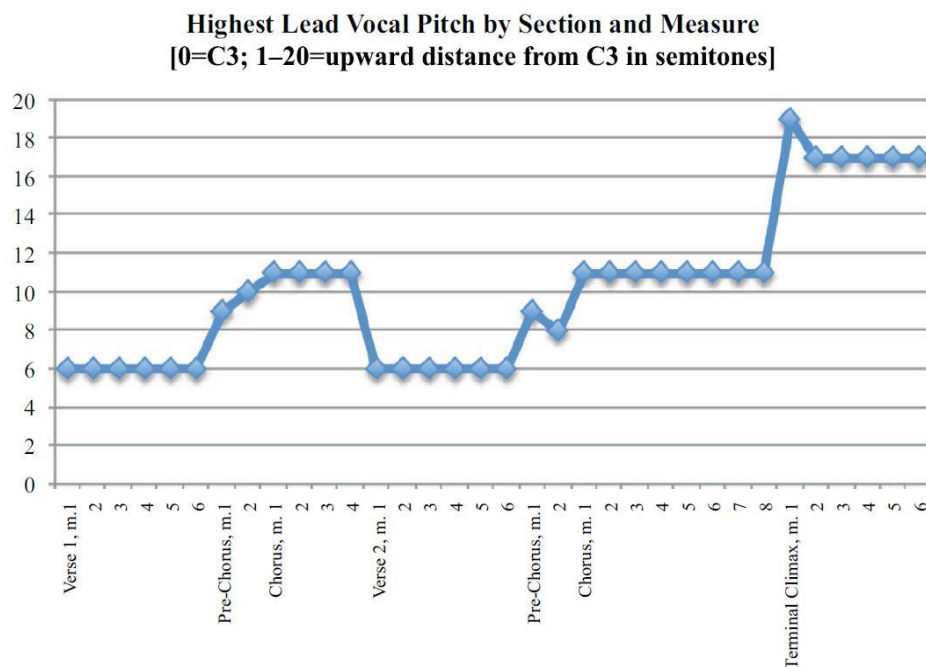
Of course, a great number of contributors address climax tangentially in a variety of analytical settings,<sup>17</sup> yet the musical climax, omnipresent as it may be, has received a surprisingly disproportionate lack of attention as a theoretical concept. Aside from two dissertations in the 1950s, the only sustained studies of climax in Western art

music are found in articles by Meyer, Agawu, and Patty, each of whom acknowledges this philosophical lacuna.<sup>18</sup> My theory of rock climaxes builds upon ideas found in these three sources, as well as Odd Torleiv Furnes's recent dissertation on musical "hits."<sup>19</sup>

Climaxes in rock music are typically structured as sectional events. My theory of sectional climax provides an alternative to the classically oriented "tension and release" and "moment" approaches, which identify climactic *points*, rather than identifying entire sections as sustained climaxes.<sup>20</sup> To be clear, I am not professing a perfect correlation between, on one hand, classical music and moment climax, and on the other, rock music and sectional climax. One can easily find exceptions to this correlation—there are certainly classical pieces in which entire sections feel climactic, and there are definitely climactic moments in rock songs. It is in fact possible for climax to appear both ways in a single piece. For example, Scott Burnham locates a tension-filled moment in the "climax of shattering force" just before the new theme in the development section in the first movement of Beethoven's *Eroica* Symphony, though he later locates another climax that we may deem to be an entire section: "the moment of syntactical climax, the recapitulation."<sup>21</sup> Though I acknowledge these exceptions, the following paragraphs aim to present further justification for a section-based theory of rock climaxes (or "plateaus," as I will claim) by examining two key facets of rock composition: repetition and studio production.

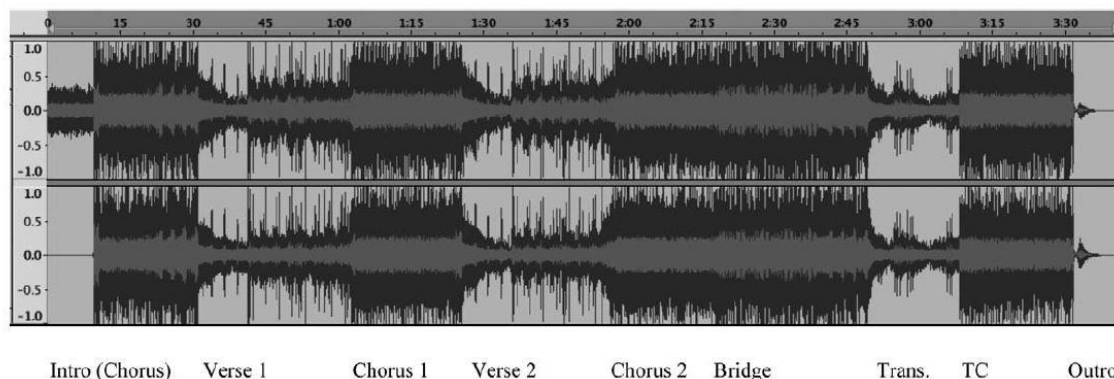
Though the role of recapitulation is integral to my theory of endings, the role of repetition in rock song form has yet to be discussed in this article. Recapitulation can be defined as the *return* to a previously heard section following the presentation of contrasting material, as in the second "A" of an A-B-A form. Repetition, on the other hand, requires no contrasting material. For example, given some thematic event "A," all subsequent presentations of that material *before* intervening material occurs (A-A-A ..., or perhaps A-A'-A'' ...) should be considered repetitions. While conventional rock songs rely on recapitulation to bring about closure, nearly all rock songs, conventional or experimental, utilize repetition within individual sections. Verses can be built from a looped chord progression, rhythmic pattern, or melody, sometimes from all three. Choruses often contain the same melodic hook presented twice (with or without different lyrics) for exaggerated impact. Thus, it makes more sense to speak of sectional *plateaus* rather than individual peaks, since the same climactic event (for example, the memorable hook or highest note) will likely repeat throughout a section.<sup>22</sup> As an illustration of these plateaus, consider the highest lead-vocal

itches among sections in Radiohead’s “Faust Arp” (2007), which are graphed in Example 2.



EXAMPLE 2. Lead vocal pitches in Radiohead, “Faust Arp” (2007).

Studio production techniques also contribute to the sectional nature of rock climaxes. As is well known, compression is a volume-equalizing studio effect applied liberally to nearly every pop/rock song, mainstream or otherwise. Though certainly most pronounced in pop-punk, Scandinavian metal, R&B, and other “polished”-sounding genres, it is applied sparingly to even the most indie-sounding recordings. By compressing the dynamic range of the track, it reduces the volume spikes caused by screams, guitar feedback, and strong drum attacks, bringing them closer to the average track level. Compression also elevates softer attacks—such as closed hi-hats, clean guitar, and even vocalists missing the microphone’s “sweet spot”—to a normative level. Because of this sonic manipulation, the average rock song’s dynamic profile is almost devoid of momentary peaks and valleys, and instead features changes between adjacent sections that range from nuanced to extreme. With compression, a single instrument cannot, under most circumstances, simply play softer or louder to achieve this desired contrast.<sup>23</sup> These changes in volume must be executed by thickening or reducing textures, and by adding or subtracting instrument parts and backing vocals. Using waveform analysis, Example 3 shows the terraced volume plateaus corresponding to distinct sections in the Deftones’ song “Root” (1995).



EXAMPLE 3. *Waveform analysis of Deftones, "Root" (1995).*

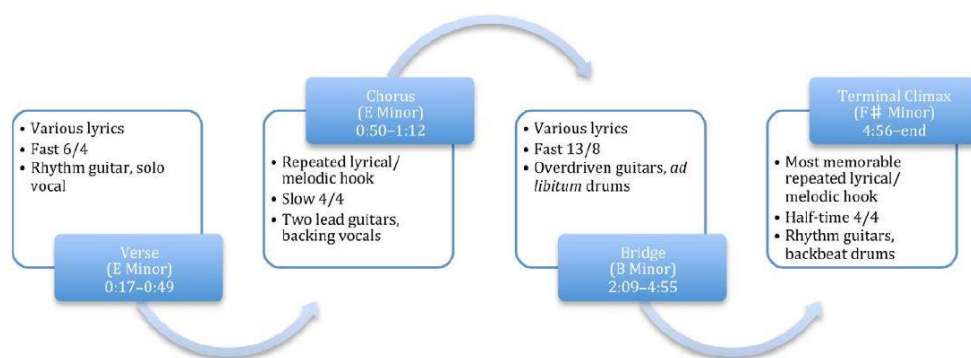
Syntactical Climax	Statistical Climax
Memorable Hook (especially featuring repeated lyrics)	Highest/Lowest Pitches (especially vocal)
Texture/Timbre Change (especially added vocal parts)	Loudest/Quietest Section
Meter Change (especially to half-time or double-time)	Fastest/Slowest Rhythm and/or Tempo
Harmonic Modulation (especially to relative major)	

EXAMPLE 4. *Parameters for gauging syntactical and statistical climaxes.*

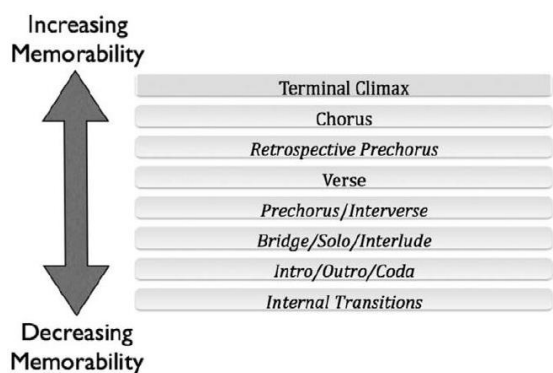
Unlike statistically measurable climaxes, such as highest note or loudest volume level (which Meyer calls a “statistical climax”), dramatic climaxes in rock music (which Meyer would call a “syntactical climax”) are reached through purely compositional conventions.<sup>24</sup> Syntactical climaxes can be identified through the recognition of paradigmatic rock tropes, including repeated lyrical/melodic hooks, modulations, presentations of the song’s title, relatively simple harmonic progressions, “laid-back” rhythmic feels, and similar strategies usually used to intensify the arrival of a chorus in verse–chorus-based songs. Moment climaxes simply do not occur in rock songs as frequently as they do in the common-practice repertoire, partially due to the constraints on volume in studio recording, but also due to rock’s compositional focus on choruses.<sup>25</sup> This focus results in choruses that function as sectional, syntactical climaxes.

Nearly every criterion provided in Example 4 for measuring climax tends to be uniform across an entire section.<sup>26</sup> Memorable hooks are often repeated, taking up the entire eight- or sixteen-measure space of a chorus. Changes in pitch center begin and end, usually very abruptly, at sectional boundaries. Tempo changes, especially to half-time,

act as a rhythmic signifier for epic endings in rock music, especially terminal climaxes. Just like harmonic modulations, tempo and metric modulations often hold for entire sections or, in the case of math-rock, form a repeated mixed-meter ostinato spanning an entire section.<sup>27</sup> Changes of texture also tend to vary only between sections, since a new take is necessary every time a player needs to switch instruments, or when an extra layer needs to be added. As an illustration of this sectional organization, Example 5 shows the syntactical parameters consistent within entire sections of Coheed and Cambria’s “The Crowning” (2003), demonstrating that the transformations between these syntactical parameters actually demarcate sectional partitions.<sup>28</sup>



EXAMPLE 5. Sectional transformations in Coheed and Cambria, “The Crowning” (2003).



EXAMPLE 6. Hypothetical ladder model for sectional climax.

In his essay on structural “highpoints” in Schumann’s *Dichterliebe*, Kofi Agawu cites the derivation of the word “climax” from the Greek *Klimax*, originally used to denote a ladder or staircase.<sup>29</sup> Because “climax” seems to denote exclusively the top of such a ladder in modern parlance, Agawu prefers his term “highpoint” to avoid etymological confusion.<sup>30</sup> While Agawu is understandably tentative in conflating climax and *Klimax*, opting instead for the neutral

term highpoint, I want to utilize this ambiguity to hypothesize the dramatic structure of rock songs. By coupling commonly held assumptions of the verse–chorus paradigm (presented in this article’s opening) with the original Greek *Klimax*, we could imagine the chorus atop the highpoint of a song’s climactic ladder. We could also imagine the verse lying just beneath it on the second rung, with the less memorable sections like bridge, intro, and outro filling in the bottom ranks, as shown in Example 6.



My ladder hypothesis, without a doubt, paints a highly subjective picture of typical rock formal structures with very broad strokes. While it is true that the chorus is more structurally salient than the verse in most rock songs, and that the verse and chorus together are, in turn, more structurally salient than any other section, the exact rank of the remaining sections in the ladder may vary from song to song, and there may well be exceptions to the rule that verses and choruses rank the highest. For these reasons, it should be clear that the model should be taken as a general framework that, far from applying universally, may vary greatly from song to song. To assert otherwise would be to deny the possibility that another section (for example, the introduction of Cream's "White Room" [1968], or David Gilmour's guitar solo in Pink Floyd's "Time" [1973]) may be the most memorable moment in a song. Though this model may potentially misrepresent a small percentage of conventional forms, particularly those in the pre-1990 canon, its real strength, as shall be seen, stems from its contextual grounding in the compositional syntax of post-millennial rock music. The model, as presented, faithfully represents the repertoire addressed in this article.

While this ladder could also model most Top-40 pop and rock songs, in order to describe the experimental forms in this article we need a section even more memorable than the chorus adorning the highest rung—the terminal climax. It is to this section, and the experimental forms it creates, that we now finally turn.

#### TERMINALLY CLIMACTIC FORMS

Experimental rock forms often present a single climactic moment only at the song's ending; some close with new material; and some do both, resulting in structures I call terminally climactic forms. As opposed to the other three formal types provided in Example 1, only TCFs feature the  $\langle r, A \rangle$  endings that are not only new, but also climactic. The classifications I present for TCFs are based on the number of section groups that divide them: two-part, three-part, or extended (four or more groups).<sup>31</sup> As Example 7 shows, two-part TCFs are partitioned into two large section groups. The first, called the verse–chorus group, contains all iterations of verse and chorus, and in many cases could be a complete song, though one lacking a bridge. The second is the climactic group, containing the memorable hook as its terminal climax, as well as optional connective sections. Repeated lyrical/melodic motives typically fill the role of climactic hook in the pre-1990 canon ("Hey Jude" is perhaps the consummate example of this),<sup>32</sup> a trend that

continues in contemporary rock songwriting practices. Since two-part TCFs contain a repeated chorus (as do all TCFs), that chorus must be downplayed in some way to reserve the true memorable highpoint for the terminal climax.

Verse/Chorus Group	Climactic Group
<i>Intro</i> , Verse 1, Chorus 1, Verse 2, Chorus 2	<i>Transition</i> , Terminal Climax, <i>Brief Outro</i>

EXAMPLE 7. *Two-part terminally climactic archetype.*

Section Group	Section	Clock Time	Description
Verse/Chorus I	Verse 1	0:01	[Fm–D $\flat$ –A $\flat$ –E $\flat$ ] progression, guitar and voice
	II Verse 2	0:39	Drums and bass enter
III	Chorus 1	1:06	[Fm–D $\flat$ –A $\flat$ –E $\flat$ ] progression continues
	Verse 3	1:31	Recap verse
Climactic	Chorus 2	1:59	Chorus progression ends on A $\flat$
	A (TC)	2:28–3:28	Half-time: [A $\flat$ –E $\flat$ /g–D $\flat$ –Fm–E $\flat$ ], “you and I, are like when”

EXAMPLE 8. *Formal design of Saves the Day, “Rocks, Tonic, Juice, Magic” (1999).*

In order to demonstrate several contemporary examples of this two-part design, I utilize a type of analytical overview that outlines only clock time and basic identifying characteristics of sections. While these overviews are in no way intended to be exhaustive analyses, they should provide sufficient information to enable the reader to locate the sections in question. Each formal design chart is followed by a brief passage of explanatory text demonstrating ways in which the terminal climax acts as the song’s contrasting highpoint, and a few such passages are followed by additional commentary on how recognition of these formal structures can serve as a springboard for analyzing other salient aspects of the song.

In verse–chorus groups, I have used roman numerals to enumerate the verse–chorus pairs that divide the group, while verses and choruses retain their common arabic numbering.<sup>33</sup> All paradigmatic, conventional sections (e.g., verse, chorus, bridge, intro, outro) are identified by name, while unconventional sections (including terminal climaxes and what I later call “modular sections”) are simply labeled using abstract letter names (e.g., A, B).<sup>34</sup> Since every song in this article contains a terminal climax, I have also identified such sections with a “TC” alongside the letter name section.<sup>35</sup>

A concise example of TCF appears in Saves the Day's "Rocks, Tonic, Juice, Magic" (1999). As can be seen from the form chart in Example 8, Verses 1, 2, and 3 are strophic lyrical settings over a standard rock progression, Fm–Db–Ab–Eb. As is common in guitar-based rock music, the roots of these four chords form a particular subset of the minor pentatonic scale that can be described as a "gapped" fifths cycle.<sup>36</sup> As Nicole Biamonte has recently noted, whether gapped or complete, pentatonic fifths cycles often exhibit tonal ambiguity due to particular melodic or harmonic factors which may work to highlight one of five possible pitch centers.<sup>37</sup> While one might be tempted to analyze this progression in F Aeolian, her recent article in this journal suggests a system of labeling that avoids Everett's criticism of conflating modal and pentatonic systems.<sup>38</sup> The rotation exemplified by this progression, which Biamonte calls triad-pentatonic 4 (^1, ^b3, ^4, ^b6, ^b7), is by far the most common of the five possible pentatonic rotations, and often results in ambiguous or competing pitch centers. This particular setting strongly suggests an F-centered interpretation based on the hypermetrically strong resolution of the so-called "rogue dominant" bVII, a chord to which many commentators have assigned dominant function based on the resolution of its constituent scale-degrees 2, 4, and b7 to either a major or minor tonic.<sup>39</sup> Everett's criticism that "a grouping of four chords seemingly taken from the Aeolian mode ... have actually been selected from the minor-pentatonic scale" holds truer for the I–IV–bIII–bVI sequential progression he cites from Nirvana's "Smells Like Teen Spirit" (1991) than with the bVII-containing progressions involved here and elsewhere in this article.<sup>40</sup>

Though, to be clear, I am not plainly stating that this verse is *in F*. As Lori Burns cautions, generalizations such as "in F minor" or "modulates to Ab" often efface the richness of an otherwise nuanced interpretation.<sup>41</sup> A more musical portrayal of pitch centrality in this verse recognizes the inherent ambiguity between an F-centered pentatonic chord progression and an Ab-major lead vocal melody. Here, and in many rock songs, these competing or ambiguous pitch centers involve the relationships between chord progressions and melodic voice-leading, especially the lead vocal melody. In the first verse of "Rocks, Tonic," the opening F4 of the verse functions not as a minor tonic, but as an upper neighbor to Eb4. The Eb then acts as a dominant reciting-pitch throughout the verse, from which the melody leaps up to Ab4–G4–Eb4 several times throughout, strongly suggesting a melodic interpretation in Ab.

Choruses appear after Verses 2 and 3, setting the same recurring lyrics each time.<sup>42</sup> Though the chorus progression contains the same chords that appeared during the verse, a stop-time rhythmic device on the first chord creates at least secondary emphasis on the  $D^b$  chord that immediately follows. While the verse treats the  $E^b4$  as a reciting tone, the vocal melody of the chorus emphasizes the higher  $A^b4$  by pairing it several times with its leading-tone, tipping the balance away from F and toward  $A^b$  major even further. Just after Chorus 2, we finally hear a reconciliation of the two competing centers, as the guitars adopt an unequivocal  $A^b$ -major progression that features both a first-inversion and root-position  $E^b$  dominant. The hypermetrically and durationally weakened F-minor chord of the climax (shown in Example 9) is even replaced by  $A^b$  major the last two times through the progression. Though one could discuss the piece's harmonic plan as a modulation to the relative major  $A^b$  for the climax, recognizing how that  $A^b$  center asserts itself throughout the piece, at first ambiguously and then explicitly, paints a more accurate picture of the piece's formal structure.

EXAMPLE 9. *Terminal climax in Saves the Day, "Rocks, Tonic, Juice, Magic" (2:28).*

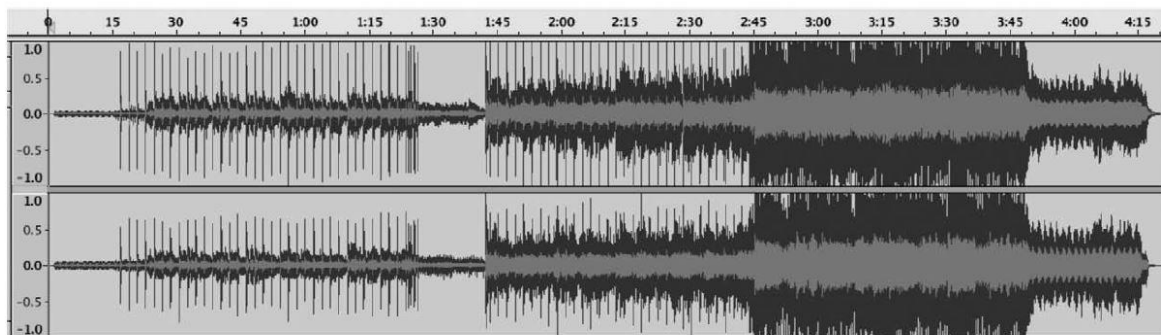
In terms of thematic material, the terminal climax presents a new lyrical/melodic hook that recurs four times over a half-time, "four-on-the-floor" anthemic feel,<sup>43</sup> ending the song with material even more memorable than the chorus. This terminal climax consists of four presentations of a lyrical/melodic hook, two more repetitions than are presented in each chorus, which, in turn, doubles the repetition from the narrative verse; thus, the repetition scheme for each section increases exponentially as we climb the climactic ladder from verse to chorus to terminal climax. One of the strengths of the ladder hypothesis is that it allows us to observe statistical parameters such as these that are structured analogously to rungs.<sup>44</sup>

Ambiguous pentatonic progressions underpinning the verses of rock songs, such as the F-centered progression in "Rocks, Tonic," often give way to progressions in the relative major for the chorus, almost as if the song were "withholding" a clearer expression of tonic major for said chorus. Calling these "breakout choruses," Christopher Doll mentions this phenomenon as a way to justify separating the oft-conflated terms tonic *function* (the property of

a chord) and tonal *center* (a more abstract concept independent of individual chords).<sup>45</sup> However, in TCFs, that tonic arrival is often reserved not for the chorus, but for the climactic ending.<sup>46</sup> In Example 8, the progressions heard in both the verse and the chorus draw attention to an F center, and the clearest expression of A $\flat$  major is withheld until the terminal climax. By analyzing the ambiguous verse and chorus in relation to the much clearer presentation of tonic in the terminal climax, I not only demonstrate the ways in which the terminal climax takes up chorus-like syntactic paradigms absent from the actual chorus, but also highlight the subservience of the verse–chorus pair to that terminal climax.

Section Group	Section	Clock Time	Description
Verse/Chorus I	Intro	0:01	Sustained open fifth in organ, solo drum set
	Verse 1	0:23	[D <sup>add9</sup> /A–D <sup>add9</sup> /G–D <sup>add9</sup> ] (bass=A–G–D)
	Chorus 1	0:55	[Em–G]
	Transition	1:26	Glockenspiel, cello, and ride cymbal only
II	Verse 2	1:42	Recap verse, strings and bass added
	Chorus 2	2:13	Recap chorus, crescendo into climax
Climactic	A	2:45	[D–Bm–GMaj <sup>7</sup> ] “feed my skeptic side”
	A’ (TC)	3:16	Polyphony over continued A-section melody
	Outro	3:49–4:22	Verse fragment over D (pitch-class) pedal

EXAMPLE 10. *Formal design of Jimmy Eat World, “Table for Glasses” (1999).*



Verse/Chorus Group-----Climactic Group-----

EXAMPLE 11. *Waveform analysis of Jimmy Eat World, “Table for Glasses.”*

While most terminal climaxes are distinguished by harmonic modulations,<sup>47</sup> Jimmy Eat World’s “A Table for Glasses” achieves contrast between verse–chorus and climactic groups primarily by increasing dynamics, as the Example 11 waveform analysis clearly demonstrates.<sup>48</sup> Quiet electric guitar and a drum set part consisting of only ride cymbal and snare (note the absence of kick drum) make up the minimal texture of the first verse–chorus pair. Strings, bass guitar, and additional percussion thicken the texture of the second verse and chorus in preparation for the climax’s dynamic explosion on the downbeat at 2:45. As in the Saves the Day example, a four-on-the-floor kick

drum drives a choir of overdubbed voices (all performed by vocalist Jim Adkins) in the hook of this loudest climactic section group.

With their focus on a single moment at the end, rather than a repeated chorus-as-advertisement, these forms may seem like a curious strategy for selling music on the radio, yet they do occasionally appear as singles. A good example is Dashboard Confessional’s commercially successful single “Hands Down” (2001), the form of which is outlined in Example 12. As I stated earlier, terminal climaxes often exhibit chorus-like traits, as if they are compensating for a function left unfulfilled by the chorus. Just as terminal climaxes often present the only harmonic modulation (a device commonly found in the chorus), the presentation of the title lyric (another function typically associated with choruses) is reserved for the terminal climax as well, as is the case in “Hands Down” and many other terminally climactic songs. As in the previous two examples, the ending of “Hands Down” moves to a half-time anthemic feel,<sup>49</sup> yet the pentatonic-to-major modulatory formula is reversed— clear expressions of E $\flat$  major in the verse and chorus give way to a climax that, by beginning on the relative minor triad, suggests a feeling of Aeolian sublimity and sophistication often lacking in the saccharine effect of most major-mode climaxes.

Section Group	Section	Clock Time	Description
Verse/Chorus I	Intro	0:01	Prolonged E $\flat$ tonic solo guitar
	Verse 1	0:13	[E $\flat$ –Cm–A $\flat$ –B $\flat$ –(turnaround on D $\flat$ –C octaves)]
	Chorus 1	0:44	[E $\flat$ –Gm–A $\flat$ –Gm–(fill)] “my hopes are so high”
II	Verse 2	1:05	Recap verse
	Chorus 2	1:35	Recap chorus
Climactic	A (TC)	1:56	Half-time: [Cm–A $\flat$ <sup>add9</sup> –E $\flat$ –B $\flat$ ] with title lyric
	A'	2:47–3:11	TC progression cont., “you meant it”

EXAMPLE 12. *Formal design of Dashboard Confessional, “Hands Down” (2001).*

However, because this climax features the same gapped 5-cycle progression as “Rocks, Tonic,” it features similar melodic/harmonic ambiguity. In the case of the “Hands Down” climax, we hear an even stronger suggestion of the relative major persisting over the pentatonic root progression. This is due in part to the clear expression of E $\flat$  major found in all previous verses and choruses, but also stems from voice-leading structures in the terminally climactic melody, transcribed in Example 13. Unmistakable tonal voice-leading, including leading-tones resolving to tonic, leading tones harmonized consonantly with B $\flat$  half-cadences, and leaps between dominant and tonic make this section much easier to hear as a vi–IV–I–V progression in E $\flat$  major than in C Aeolian, despite the presence of the same rogue dominant found in “Rocks, Tonic.” Nonetheless, it is only by appreciating the hypermetric emphasis on

the C-minor triad that we can recognize the way in which contrast, both melodic and harmonic, helps set apart this memorable climax.

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

Hands down this is the best date I can e-ver re-mem - ber, al-ways re-mem - ber the sound

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

of theste-re-o down oh so soft like the scent of your hair that you twirl in your fin - gers and the

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

time on the clock when we re - alized it's so late and this walk that we share to - ge - ther. The streets

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

were wet and the gate was locked so I jumped in and let you in and you stood

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

at your door with your hands on my waist and you kissed me like you meant it and I knew

Cm                      A<sup>b</sup>                      E<sup>b</sup>                      B<sup>b</sup>

that you meant it that you meant it that you meant it and I knew

Cm                      A<sup>b</sup>                      E<sup>b</sup>

that you meant it that you meant it.

EXAMPLE 13. *Terminal Climax in Dashboard Confessional, "Hands Down" (1:56).*

Recognizing the  $\langle r, A \rangle$  ending in "Hands Down" may also serve as a first step to revealing the ways in which musicians amplify the dramatic import of this structural high point in live performance. Though my analysis has referenced the original acoustic version of the song, "Hands Down" was later arranged for full band and performed live on the *Late Show with David Letterman*.<sup>50</sup> Both the new arrangement and the kinesthetic responses of the performers reveal attempts to intensify the arrival of the terminal climax. Throughout the performance one can observe the guitarists using palm-muted textures during the verses,<sup>51</sup> then increasing the volume in the choruses by allowing the undampened strings to vibrate freely. For the terminal climax the strings remain undampened, and both

guitarists boost the overall volume significantly by switching on additional overdrive pedals. If we map this rise in guitar volume onto the climactic ladder presented in Example 6, a clear analogy emerges between the rise in volume produced by these guitar techniques (palm-muting–open strings–overdrive pedal) and the relative position of those techniques’ respective section on the climactic ladder (verse–chorus–terminal climax).

The drummer’s choice of time-keeping cymbal also reveals a connection to the song form. During the verses, he plays on closed hi-hat cymbals; during the choruses, he plays on the louder ride cymbal; and only during the terminal climax does he keep time on the edge of the crash cymbal—a technique known as “washing”—which produces the loudest sound and widest overtone spectrum of all available time-keeping instruments on the drum set. If we map these time-keeping instruments onto a scale of increasing loudness (hi-hat–ride cymbal–crash cymbal), we can observe the same analogy between loudness and section (verse–chorus–terminal climax).<sup>52</sup>

With their reliance on modulatory endings (or at least the reservation of an unequivocal tonic for the song’s ending), these concise two-part forms invite comparison to harmonic conventions in Romantic *Lieder*, often discussed under the classification “directional tonality.”<sup>53</sup> As we progress from two-part to three-part sectional designs, TCFs retain these harmonic conventions, though the transition between first and final pitch centers is commonly mediated by yet another pitch center in the middle bridge group. As shown in Example 14, three-part TCFs proceed much like their two-part equivalents. The main exception is that the prototypical bridge section, which frequently separates the second and third choruses in conventional recapitulatory forms, is here expanded to a multipartite section group. Of course, this group no longer leads to a recapitulatory ending, but instead to a terminal climax. As in two-part TCFs, the memorable highpoint is reserved for the climactic hook. The climactic section is also expanded and includes not just a single hook, but may also contain modular sections acting as variations on that hook. Since this design usually yields a longer overall duration, the antecedents for such structures do not appear with any frequency until later in the 1960s, becoming especially prominent in the 1970s.<sup>54</sup> As more sections are introduced to longer three-part songs, there is inevitably more variation on the archetypes. Examples of three-part TCFs are noticeably less predictable than their two-part analogues.



Verse/Chorus Group	Bridge Group	Climactic Group
Intro, Verse 1, Chorus 1, Verse 2, Chorus 2	Modular sections (sometimes including lyrics)	Transition, TC, Modular Sections, Outro

EXAMPLE 14. *Three-part terminally climactic archetype.*

Section Group	Section	Clock Time	Description
Verse/Chorus I	Intro	0:01	Swing fingerpicking in A (mode mixture, including Picardy thirds)
	Verse 1	0:37	Voice enters
	Chorus 1	1:07	“I saw a sign in the sky”
	Transition	1:45	Low piano added [C–D–A]; D Major chord hints at Dorian mode
II	Verse 2	2:15	Only voice and guitar again
	Chorus 2	2:46	Recap chorus
Bridge	A	3:33	A–G#–D line introduced
	B	4:04	“He will take you”
Climactic	C (TC)	4:34	“He is the Lord”
	C'	5:32–6:33	“Seven swans, seven swans...”

EXAMPLE 15. *Formal design of Sufjan Stevens, “Seven Swans” (2004).*

EXAMPLE 16. *Terminal Climax in Sufjan Stevens, “Seven Swans” (5:32).*

As our first example of this three-part design, consider Sufjan Stevens’s “Seven Swans” (2004), the form of which is shown in Example 15. After a first verse containing only vocals and fingerpicked guitar, the transition grows louder by the addition of low piano tones, but this intensification is quickly aborted in favor of sparse instrumentation and hushed volume in the second verse. Following a quiet solo guitar transition, the bridge is introduced by a female background vocalise on “ooh” and the piano, now playing in both high and low registers. Following a few lines of sung text, the bridge steadily swells in volume preparing for the climactic hook, “He is the Lord.” Overdriven and compressed drums enter for the first time, easily elevating the song to its highest amplitude thus far, almost to the

point of clipping. The C' variation, transcribed in Example 16, transfers the “He is the Lord” hook to the female voice, enabling Stevens to proclaim the song’s title several times. In addition to presenting a transcendent, anthemic experience common to many terminal climaxes,<sup>55</sup> this section boasts the song’s loudest dynamic, recurring title lyrics, and background vocals; these are features one would typically expect from a repeated chorus, yet here they occur only once at the end of the song.

Comparing the relatively compact design of “Seven Swans” with the sprawling formal plan of the Mars Volta’s “Meccamputechture” (2006), which lasts over eleven minutes, reveals an intrinsic flexibility to the three-part design (see Example 17). The Mars Volta expands this form far beyond the scope of a two-part design by setting three verse–chorus pairs (each containing a substantial prechorus and separated by guitar solos), yielding a verse–chorus group that lasts over seven minutes. The bridge and climactic groups both proceed with variations on some basic thematic idea. A bass-and-drums groove serves as the accompaniment for an improvised saxophone solo in the bridge group, which undergoes a process of tape transformation yielding three distinct sectional stages. Another groove serves as a tapestry for the repeated lyrical/melodic hook “it lacks a human voice” in the climactic group, which undergoes a similar process of deformation (as opposed to transformation): Cedric Bixler-Zavala’s voice is subjected to delay effects starting at 10:14, with his voice gradually reduced to an echo as saxophone and other instrumental timbres are pushed to the foreground.

Section Group	Section	Clock Time	Description
	Intro	0:01	Initial 12/8 hemiola groove introduced
Verse/Chorus I	Verse 1	0:43	Voice with bass and drums groove
	Transition A	1:43	Improv guitar solo
	Prechorus	1:48	“Please dismantle all these phantom limbs”
	Transition B	2:09	Drum solo
	Chorus 1	2:18	“Everyone stares all the time...”
	Transition A	2:34	Longer improv guitar solo, like 1:43
II	Verse 2	3:24	Voice reenters with new lyrics
	Prechorus	3:57	Recap “please dismantle...”
	Transition B	4:19	Drum solo
	Chorus 2	4:27	“Everyone stares all the time...”
	Transition A'	4:44	Double guitar solo
III	Verse 3	5:23	Recap verse quietly, vocal manipulation
	Prechorus	6:08	Recap “please dismantle...”
	Transition B'	6:28	Vocals added over drum solo
	Chorus 3	6:36	Double chorus
Bridge	A sax solo	7:04	Uses verse groove
	A'	7:34	Tape sounds added
	A''	8:45	Tape sounds take over, sax barely recognizable
Climactic	B (TC)	9:15	“It lacks a human voice”
	B'	9:47	Organ solo, melisma, drums accelerate
	Outro	10:30–11:03	Voice drops out

EXAMPLE 17. *Formal design of the Mars Volta, “Meccamputechture” (2006).*

Returning now to a song I first mentioned in Example 5, the form chart in Example 18 shows that the entire verse–chorus group of Coheed and Cambria’s “The Crowing” is centered in E, established at the onset by the standard rock progression  $i-b VII-b VI$ .<sup>56</sup> Contrast between the verse and chorus occurs three ways: through the modulation from fast 6/8 to slow 4/4, through the repeated lyrical/melodic setting of the chorus versus the linear narrative of the verse, and through a different E-centered progression with slower harmonic rhythm and fewer chords. Following the second verse–chorus pair, the bridge group proceeds by presenting several thematically distinct sections, most of which are texted. The climactic group then presents a lyrical/melodic hook complete with two varied repetitions.

Section Group	Section	Clock Time	Description
Verse/Chorus	Intro	0:01	[Em <sup>10-9</sup> –D–C];
I	Verse 1	0:17	Intro progression continues, full band 6/8 groove
	Chorus 1	0:50	[Em–C]; harmonic rhythm half-time; 4/4 groove
II	Verse 2	1:13	Recap verse
	Chorus 2	1:46	Recap chorus
Bridge	A	2:09	[C–D]; laid back 4/4 groove
	B	2:31	[Em–D–C]; “pray you’re not the only one”
	C	2:53	E minor chord with virtuosic stop-time tag
	D	3:13	[Bm–A]; 13/8 rhythmically intricate groove
	E	3:30	G and B parallel 9 <sup>th</sup> chords
	F	4:06	[B5–G5] palm-mute build-up; gradually getting louder
Climactic	G (TC)	4:56	[F#m–D–A–E]; “dear Ambellina”
	G’	5:18	Progression continues; developing lyrics over double-time groove
	G’’	5:40	Back to half-time; “I will call you”
	G (fade out)	6:02–6:35	“Dear Ambellina” lyrics fade-out

EXAMPLE 18. *Formal design of Coheed and Cambria, “The Crowing” (2003).*

Recall the chart in Example 5, which shows syntactical parameters consistent within entire sections of “The Crowing.” In support of my thesis regarding the sectional nature of climax, note how the transformations between three syntactical parameters (pitch center, meter, and texture) not only demarcate boundaries between section groups, but also help structure the form in a singular trajectory toward a dramatic conclusion. Harmonically, “The Crowing” marks its climax not with the customary move to the relative major, but with a more sophisticated culmination of an ascending fifths progression separating the pitch centers of three section groups: E in the verse–chorus group, B in the bridge group, and F# in the climactic group. For reasons other than the aforementioned tonal ambiguity involved in these pentatonic and modal progressions, one should be cautious about assigning such austere tonal labels. As Burns warns, “When we identify chords as ‘I’ or ‘tonic,’ this evokes a host of associations of tonic

as the generator of harmonic activity, the goal of directed motion, and the source of unity.”<sup>57</sup> Therefore, this cycle of ascending fifths should be taken as only one way to hear the pitch centers found throughout the piece. Another hearing might, for example, highlight the overall monotonic unity of the piece, a hearing based on an E center that mixes Aeolian, Dorian, and Mixolydian modes throughout, even when no E *chord* is present.<sup>58</sup>

Observations about TCFs can be used to analyze arrangements and live performances (as in the Dashboard Confessional example), but may also provide a means to understand more fully the lyrical structure of a song. Lyrically, the terminal climax of “The Crowing” marks an important moment in the plot of *The Amory Wars*, the accompanying graphic novel on which all the band’s songs are based. Claudio, the story’s protagonist, metamorphoses at this point into a savior prophesized from the onset—The Crowing. Ambellina, a member of a troupe of angels called The Prise, has been watching the story unfold from Heaven, but now decides to burn her wings and return to Earth as Claudio’s guardian. The lyrics of the climax are often interpreted as a letter from Claudio to the angel Ambellina after learning of her descent to Earth.<sup>59</sup> This pivotal multi-media climax is set to music by a repeating lyrical/melodic hook unfolding over the F $\sharp$ -centered “gapped 5-cycle” progression shown in Example 19.<sup>60</sup>

G<sup>1</sup>: (*chord progression continues, double-time tempo modulation . . .*)

“I fought the decision that call and lost  
my mark as the relevant piece in this  
I will come reformed  
In short for the murders of those I court  
I bless the hour that holds your fall  
I will kill you all”

G<sup>2</sup>: (*chord progression continues, back to half time*)

“I will call you out from shelter burn your wings, you’ll know no better  
I will call you out from shelter burn your wings and learn their letters”

(*Recap G until fade out*)

EXAMPLE 19. *Climactic lyrics of Coheed and Cambria, “The Crowing” (4:56–end).*

Since Coheed and Cambria’s lyrics all derive from *The Amory Wars*, they form a single, inter-album narrative. TCFs, with their  $\langle r, A \rangle$  endings, are a much more effective formal vehicle for the individual songs that impart particularly important moments in *The Amory Wars*. Just as the same climactic moment occurring three times over the course of a novel seems absurd, it would be hard to imagine setting such a dramatic textual moment three times throughout a song (as a chorus); instead, the singular presentation at the end is much more effective for these dramatic, often violent lyrical climaxes that occur at the end of many of Coheed’s songs.<sup>61</sup> By observing the TCFs found in these songs, we can construct a meaningful relationship between lyrical narrative and musical form.

Just as the range of possibilities for specific formal designs within an archetype grows as we move from short two-part structures to longer three-part ones, the task of generating overarching formal principles from even longer songs becomes increasingly complex. Imagine two scientific experiments, one with few dependent variables, the other with several. Researchers will undoubtedly predict with greater accuracy the results of the experiment with fewer variables, while those containing a multitude of uncertainties will produce a wider range of outcomes. However, by extending the same principles present in two-part and three-part TCFs, the archetype I present for extended TCFs is able to represent these large structures abstractly enough to accommodate a wide range of unique formal designs.

Extended TCFs expand the bridge group of three-part forms by recursion. Three-part TCFs expand the bridge of a prototypical verse–chorus form, and the extended archetype expands that middle bridge group itself into at least two distinct groups, as shown in Example 20.<sup>62</sup> Due to their distended duration, these extended forms vary unpredictably from song to song, each song taking a unique element as a point for exploration. Often, dynamic contrast between medial section groups is the only invariable factor. Thus, I cautiously present an extended terminally climactic archetype that names medial groups simply by their role in such a dynamic contrast, either as “loud” or “soft.”

[-----Bridge Expansion-----]

<b>Verse/Chorus Group</b>	<b>Loud Group</b>	<b>Soft Group</b>	<b>Climactic Group</b>
<i>Intro</i> , Verse 1, Chorus 1, <i>Transition</i> , Verse 2, Chorus 2	Dynamically related modular sections	Dynamically related modular sections	<i>Transition</i> , Terminal Climax, <i>Modular Sections</i> , <i>Outro</i>

EXAMPLE 20. *Extended terminally climactic form archetype.*

Like Coheed and Cambria, the Portland-based rock group the Decemberists typically employs coherent lyrical narratives spanning entire albums. While their early attempts at this unification gradually progressed from the standard fare “concept album” through the rarer “narrative concept album,” their release *The Hazards of Love* (2009) is a recorded rock opera in the tradition of the Who’s *Tommy*.<sup>63</sup> “The Crane Wife 1 & 2” is the penultimate track from the Decemberists’ album *The Crane Wife* (2006). Though it has significant lyrical ties to the rest of the album (namely “The Crane Wife 3,” which curiously *begins* the album), it is musically autonomous, lacking the thematic unification required of rock operas.<sup>64</sup> Furthermore, “The Crane Wife 1 & 2” functions as one autonomous song in much the same way that Everett analyzes “Suite: Judy Blue Eyes” and Stephenson analyzes Chicago’s “Dialogue (Parts I & II),” despite the fact that all three songs suggest multi-part designs in their titles.<sup>65</sup> The eleven-minute track is far too unified to be composed of two separate songs, and this unification is largely a product of the repeated chorus.<sup>66</sup> Choruses A and B (which I have labeled as such to avoid numbering sections continuously in two distinct groups) are based on the same lyrical/thematic material, containing only slight modifications. These adaptations are partially due to their respective dynamic settings: one, a loud full-band instrumentation (Chorus A), the other a quiet texture of fingerpicked guitar and voice (Chorus B).<sup>67</sup> Consult Example 22 for a comparison of these two settings. One could scarcely imagine writing two distinct songs that featured such similar choruses. Arguing that this track encompasses two songs would be akin to contesting that the second theme from a sonata’s exposition and recapitulation belonged to two different pieces, since they contained slight differences necessitated by their distinct musical settings.

Section Group	Section	Clock Time	Description
Verse/Chorus	I Verse A1	0:01	[G–Em–C–G], voice and ac. guitar; twice the length of all following verses
	Prechorus A	1:18	“and all the stars,” dominant pedal
	II Verse A2	1:38	“It was a white crane,” drums enter
	Prechorus A	2:13	Recap prechorus A
Loud	Chorus A1	2:32	“My crane wife”
	III Verse A3	2:57	“I helped her”
	Prechorus A	3:29	recap prechorus A
	Chorus A2	3:49	Recap chorus
	Outro	4:12	“Da, da” over verse progression, decrescendo, inflect Aeolian mode at 5:17
Soft	Transition	5:33	Fingerpicked guitar [D <sup>sus4</sup> –C–G]
I	Verse B1	5:54	“My crane wife arrived at my door”
	Prechorus B	6:47	“Sound the keening bell” [Em–A]
	Chorus B1	7:20	“My crane wife”
	II Verse B2	7:43	Recap verse
	Prechorus B	8:36	Recap prechorus B
	Chorus B2	9:07	Recap chorus
Climactic	Transition	9:20	“There’s a bend in the wind” build-up [Em–F]
	A	9:44	[G–C] “Rakes at my heart,” instrumental at 10:14
	A’ (TC)	10:28	“Heart” melismatic choral setting
	Outro	11:00–11:20	Song title, fingerpicked guitar on Dsus4

EXAMPLE 21. *Formal design of the Decemberists, “The Crane Wife 1 & 2” (2006).*

Chorus A (2:32)

My crane wife my crane wife my crane wife my crane wife

Chorus B (7:20)

My crane wife my crane wife my crane wife

EXAMPLE 22. *Choruses in the Decemberists, "The Crane Wife 1 & 2" (2:32, 7:20).*

In “The Crane Wife 1 & 2,” the dynamically unified section groups are also thematically related, as evidenced by each section’s preservation of a distinct verse setting, labeled Verse A and Verse B. Somewhat related to their dynamic unification, the soft and loud section groups are also timbrally unified by their respective instrumentations. While the loud group is performed by the full band, featuring crash cymbals and overdriven electric guitars, the soft group relies primarily on fingerpicked acoustic guitar. This change in volume and timbre can be seen as a large-scale interpretation of a time-honored rock paradigm: the shift from acoustic or clean guitars in the verses to electric or distorted guitars in the choruses. Take for example the change from 12-string guitar to electric guitar in Boston’s “More Than a Feeling” (1976) and countless Nirvana songs where Kurt Cobain turned from clean tones in the verses (though often effected with flange, phase, delay, etc.) to completely saturated distortion in the choruses.<sup>68</sup> In noticing the ways that this quiet–loud paradigm found in verse–chorus-based forms is modified to fit extended TCFs, we can also note the shared timbral gestures that engender that paradigm.

Unlike “The Crane Wife 1 & 2,” Tool’s “Pushit” (1996) has no ambiguity with regard to the sovereignty of its constituent parts—the song features a clear dramatic trajectory from beginning to end. Thematically, the difference between verse and chorus is somewhat understated. In fact, the verse and chorus may be described as monothematic, since both consist of the same basic guitar-and-drums groove. This lack of pronounced contrast between verse and chorus has become something of a “clue” to me in recognizing TCFs even upon first listening. Since the distinguishing characteristic of a contrasting verse–chorus design is thematic contrast between verse and chorus, when that contrast is absent one can usually expect to find it at the song’s ending in the form of a terminal climax.<sup>69</sup> The verse–chorus contrast in “Pushit” is largely sonic. While the verses are composed of only slightly dirty guitar

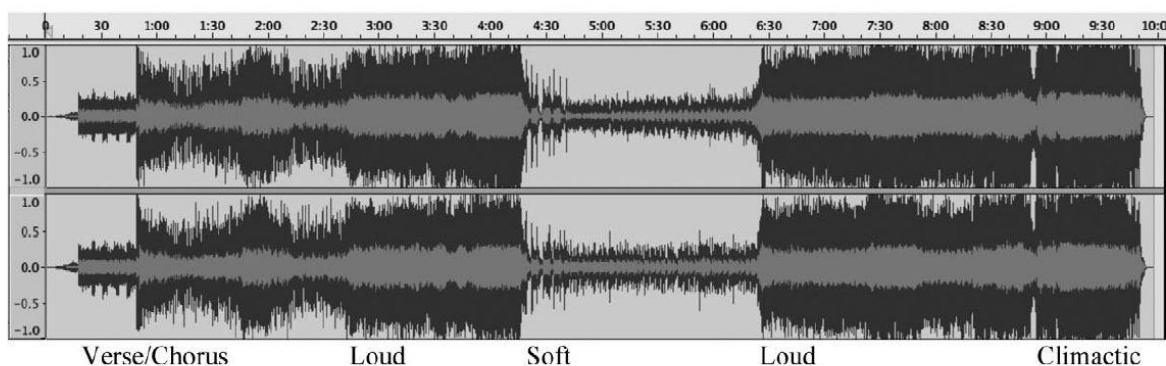
tones and closed hi-hats, the chorus boasts overdriven multiple guitars accompanied by washy ride and crash cymbals. Combined with the timbral growth enacted from the onset of the “swarming” noises in the song’s opening (recalling Penderecki’s *Threnody for the Victims of Hiroshima*), one can hear the first two minutes of “Pushit” as a continuous arc of swelling texture and dynamics.

Section Group	Section	Clock Time	Description
Verse/Chorus	Intro	0:01	Aeolian guitar riff with A pedal
I	Verse 1	0:17	Guitar ostinato begins, then voice enters
II	Verse 2	0:50	Full band enters, 6/8 groove established; voice enters with recap verse, new lyrics
	Prechorus	1:25	“Pushin’ me, shovin’ me”
	Chorus 1	1:48	[A–G–A–C–B] octave chords arise from doubling notes of opening guitar at the lower octave
III	Verse 3	2:00	Recap verse; “rest your trigger on my finger”
	Prechorus	2:34	Recap prechorus, guitar in power chords: [A5–G5–A5–C5–B5]
	Chorus 2	2:46	Recap chorus
Loud	A	2:57	[A–G#–F–G] mode-mixed bassline underneath opening guitar riff
	A’	3:30	Guitar joins mode-mixed bassline in power chords [A5–G#5–F5–G5]
	B	3:52	[F5–D5] riff
Soft	C	4:16	Slow 6/4 groove established; electronic percussion and guitar
	D	5:05	Melodic bassline joins drum groove; guitar continues ad libitum; “I am somewhere I don’t wanna be”
Loud	E	6:26	Begin long instrumental feature: bass and drums groove turns heavier, guitar begins to solo
	E’	7:08	Groove begins to dissolve as instruments incorporate more virtuosity
	F	7:25	New guitar riff, still instrumental
	G	7:53	Vocals return: “saw that gap again today”; new guitar riff
Climactic	H	8:22	“If when I say I might fade like a sigh if I stay” in highest register thus far
	J	8:51	Stop gesture, free time
	Transition	9:06	6/8 climactic groove established
	K (TC)	9:18	Vocals join, begin lyrical narrative
	K’	9:30	Groove changes; “remember I will always love you”
	Outro	9:42–9:58	Unison tag, ending on non-tonic Bb5 <sup>add9</sup> chord

EXAMPLE 23. *Formal design of Tool, “Pushit” (1996).*



The middle sections of “Pushit” are partitioned into three dynamically distinct section groups in the pattern of loud–soft–loud, as can be clearly observed from the waveform analysis in Example 24. Departing from the opening guitar riff for the first time in the song, Section A’ at 3:30 simply adds power chords to the bass riff established at 2:57.<sup>70</sup> There is also a marked metric change, as the ambiguity between compound and simple time is resolved in favor of a clear 12/8 for the first time in the song. The soft group beginning at 4:16 immediately flips the newly established compound time to the sextuple simple groove transcribed in Example 25. Beginning at 6:26, the second loud section group develops the Example 25 bass groove while the guitar begins to solo. In fact, this bass groove acts as a unifying device for the entire loud group, while the drums and guitar explore more virtuosic techniques typically associated with solo sections.



EXAMPLE 24. *Waveform analysis of Tool, "Pushit."*

EXAMPLE 25. *Section D bass and drums groove in Tool, "Pushit" (5:05).*

The climactic group of “Pushit” is marked by vocalist Maynard James Keenan’s highest vocal note (the A4 on “say” at 8:28), which appears as part of the vocal melody in contrasting *bel canto* tone transcribed in Example 26. After three presentations in a traditional call-and-response format (the rhythm section riff as a call, each vocal presentation

as a response), the music shifts gears to a freer metric organization at 8:51, featuring yet another varied presentation of the lyrical theme “pushin’ and shovin’, pushin’ me.”

*freely, with much rubato*

Voice: If when I say... I might fade like a sigh if I stay here...

Guitar: [Complex rhythmic accompaniment]

Drums: [Complex rhythmic accompaniment]

Voice: You mi-ni-mize... my move-ments a-ny - way...

Guit.: [Complex rhythmic accompaniment]

Dr.: [Complex rhythmic accompaniment]

Voice: I... must per - suade you a - no-ther way.

Guit.: [Complex rhythmic accompaniment]

Dr.: [Complex rhythmic accompaniment]

EXAMPLE 26. *Theme H in Tool, "Pushit" (8:22).*

Keenan’s sustained scream in a high tessitura (“there’s no love in fear!”) transitions into the terminal climax at 9:06, under which the guitar, bass, and drums establish the 6/8 compound groove that forms the backdrop of the climactic lyrical moment shown in Example 27. Rather than present a repeated lyrical/melodic hook (a feature normally outside Tool’s neo-prog style), the lyrics presented by the terminal climax continuously develop and progress in intensity, only repeating a lyric at the end to bring about closure. A brief outro follows without transition, composed of a short unison instrumental tag that leaves the piece hanging on a dramatic non-tonic  $B\flat 5^{\text{add}9}$  harmony.

The image shows musical notation for the terminal climax of Tool's "Pushit". It consists of two staves: Guitar and Drums. The Guitar staff is in 6/8 time and features a series of chords. The Drums staff is also in 6/8 time and shows a complex rhythmic pattern with various note values and rests.

There's no love in fear!  
 Staring down that hole again  
 Hands are on my back again  
 Survival is my only friend  
 Terrified of what may come

Remember I'll always love you  
 As I claw your fucking throat away  
 It will end no other way  
 It will end no other way!

EXAMPLE 27. *Terminal climax (theme K) and lyrics in Tool, "Pushit" (9:06-end).*

#### TERMINALLY CLIMACTIC FORMS WITHIN ROCK HISTORY

After demonstrating the need for a theoretical formulation of terminally climactic forms, the niche they fill among other types of rock endings and climaxes, the three classifications in which they appear, and several examples from recent rock music, I would like to close with some brief comments regarding the place of such experimental formal structures within the verse–chorus paradigm, and within the larger scope of rock history. In his essay on formal structures in the Beatles, John Covach argues that the band's gradual development of a more independent formal aesthetic from 1964 to 1968 marked a shift from the "craftsperson" approach to songwriting toward a truly "artistic" formal innovation; each of the forms presented by Covach, however, ends with either a verse or chorus.<sup>71</sup> I contend that, while this middle-period Beatles practice described by Covach represents a distinct evolution in rock songwriting practice (one that influences composers to this day), their true contribution was the omission of concluding recapitulations,<sup>72</sup> a practice that they did not explore until later in their stylistic evolution, and that did not become fully realized in rock aesthetics until the TCFs closer to the turn of the century.

Rock artists in the new millennium can thus be understood as having one foot in the dominant formal paradigms of today *made possible* by the Beatles, while recursively beginning to integrate these experimental terminal climaxes into their regular compositional practice. In *The Time of Music*, Jonathan Kramer writes:

Those rare pieces that end in a key other than the one in which they begin depend for their force on the denial of this expectation (or else they are products of particular stylistic conventions, as are Sousa marches, for example). The expectation of tonic return is still operative, but that implication is ultimately denied for expressive effect.<sup>73</sup>

While the Beatles' use of non-recapitulatory endings could have been received as an expressive denial of a particular formal convention in the late 1960s (though it is hard to hear anything but affirmation in the "Hey Jude" and "Happiness is a Warm Gun" endings), terminal climaxes in contemporary experimental rock music may begin to reach the point of a particular stylistic convention by the twenty-first century.<sup>74</sup> In other words, the Beatles' experimental push could not be fully absorbed into rock aesthetics until after the end of a dialectical cycle moving from experimentation to convention and back. The experimentation they pioneered in the late 1960s continued strong into the early 1970s, and thus the Beatles can be understood as the harbingers of progressive rock, or at least as ushering in the arrival of that genre. However, the conventional backlashes spawned by genres like punk and disco in the late 1970s seem to take hold throughout the 1980s, and this level of formal conventionality can be heard all the way into the "alternative" rock of the late 1980s and grunge of the early 1990s. Of course, this is not to say that one cannot hear TCFs scattered throughout that period of conventionality, only that they are the exception, rather than the rule; and that this previously sparse formal structure becomes part and parcel of post-1990s rock music.<sup>75</sup>

The TCFs in this article can be understood as *experimenting* with verse–chorus-based forms, using recognizable verse and chorus structures while exploring new ways to end songs without relying on the recapitulatory endings of conventional pop and rock songs. On one hand, most conventional rock music strategically places its climax-as-selling point in the repeated chorus, and brings about closure only by recapitulating a previously heard section. On the other hand, experimental rock forms effect a sea change in dramatic structure by playing with new possibilities for climaxes and endings—two pivotal formal elements. Truly revolutionary formal designs dispose of chorus dependency by taking the compositional risk of ending with new material, rather than fulfilling a listener's desire for recapitulatory certitude and closure. In relocating listener desire, these experimental artists may even begin to bend the late capitalist "climax-as-advertisement" convention toward an artistic practice in which climax functions an *aesthetic* product, rather than a commercial one.

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## NOTES

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<sup>1</sup>Covach (2005, 71).

<sup>2</sup>Everett (2008, 112).

<sup>3</sup>Though there could be several plausible explanations for why this phenomenon has become more widespread in the past 10 to 15 years, it may be linked to the changes in music distribution made possible by the internet. When the only opportunity to advertise records was through radioplay, songs needed catchy choruses or reprises to serve as focused selling points that would instantly resonate with the listener. Since that listener may only hear (or stay tuned for) part of the song, having several repetitions of these focused selling points surely helped. The ability to download or stream songs over the internet in the last 10 to 15 years means that a consumer can now listen to a song as many times as desired, so the need for immediate impact and memorability may be somewhat diminished. Just as the rise of Album-Oriented Radio in the 1970s allowed for longer songs to garner airplay, stream-on-demand internet radio may now be undermining the once necessary link between commercial success and repetitive forms. Another possible explanation might involve the rise of independent record labels, which tend to sign and promote bands that rely less on the verse–chorus conventions of Top-40 rock.

<sup>4</sup>It is these chorus-like tropes (which I will describe later as “syntactic climaxes”) that distinguish terminal climaxes from codas. While both are based on new material, rock endings commonly described as codas by rock musicians and scholars are not only shorter than my terminal climaxes, but also, as a rule, do not present material more memorable than the chorus.

<sup>5</sup>Particularly memorable melodies (especially in popular song) are commonly referred to as hooks; see Traut (2005). Since terminal climaxes are always based on memorable melodies, I use the terms “hook” and “terminal climax” synonymously throughout this article unless I am referring to a different, less memorable hook occurring elsewhere in the song.



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<sup>6</sup> In analyzing “Hey Jude” as a “compound binary form,” Stephenson (2002, 141) seems to rely on a weak analogy to common-practice formal structures, while Everett (2009, 154) simply hears it as a repetitious coda. More recently, Frank Samarotto (2012) has analyzed the two contrasting halves of this and other songs as exemplifying a trope that he calls “expectancy/infinity.”

<sup>7</sup>See Spicer (2004).

<sup>8</sup>Other pre-1990 TCFs of note include: Sly and the Family Stone’s “Stand” (1969), the Doobie Brothers’ “Black Water” (1974), Fleetwood Mac’s “The Chain” (1977), Pink Floyd’s “Goodbye Blue Sky” (1979), the Commodores’ “Sail On” (1979), and Band Aid’s “Do They Know It’s Christmas?” (1984). See Appendix A for a thorough listing of post-1990 terminally climactic forms.

<sup>9</sup>By post-millennial, I am conceiving of a “long twenty-first century” that includes precursors in the mid-to-late 1990s. The lack of research involving this new music is due in part to the fact that most present-day scholars are more familiar with a rock canon spanning the late ’50s to the early ’90s than with any contemporary practice. For example, Stephenson (2002) includes 475 examples in his book, and the median release date among those examples is 1973. The median release date of the 36 examples included in Covach’s (2005) essay is 1963. Music-theoretical publications that do address more recent rock music, particularly that of the 1990s onward, include Spicer’s (2004) article on (ac)cumulative forms, Doll’s (2007) dissertation on rock harmony, and Pieslak’s (2007) article on the Swedish math-metal group Meshuggah.

<sup>10</sup>I define experimental rock as a genre typified by a compositional process, one that *experiments* by challenging conventional assumptions about rock music. Artists may experiment with some parameters while leaving other conventions intact. We can imagine a song that, instead of challenging conventional rock harmonic techniques, subverts traditional verse–chorus forms through experiments with song structure (which turns out to be the case with many songs analyzed in this article). Artists may conversely retain conventional verse–chorus or twelve-bar blues forms for a composition that experiments outside of rock’s mostly diatonic melodic/harmonic paradigm in order to avoid alienating listeners, or perhaps presenting a sort of “information overload.” Examples of songs featuring experimental harmonic palettes yet conventional formal designs abound, including Radiohead’s “Knives Out” (2001), which uses a standard verse–chorus design to set chromatic sequences with semitonal voice-leading (e.g., Amin–AMaj–Dmin–DMaj–Gmin in the choruses) and chromatic mediant relations (e.g., Emin–Cmin in the verses).

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<sup>11</sup>“Initiating,” “medial,” and “concluding” are generalized formal functions used by William Caplin. These generalized functions take on specific names when applied to specific *Sätze*; see Caplin (1998, 97).

<sup>12</sup>In cases of introductory material recurring elsewhere in the song, this phenomenon may be better described as a *recapitulation*, rather than casting the same musical material under two different names at two different moments (e.g., the same material described as “intro” and “outro”). While the same may be said for bridge material that reappears, Everett (2009, 149) mentions two songs from 1967 that end with their ostensible bridge (Sam and Dave’s “Soul Man” and Aretha Franklin’s “I Never Loved a Man”), claiming that this peculiar design leaves the listener wondering what happened to the final hook. However, such an assertion calls into question whether we can distinguish between a bridge and a coda without recourse to their location within a song. Endings such as these may also be described as *anti-climaxes*, and also occur in some modern rock songs, including Tool’s “Prison Sex” (1993), Alkaline Trio’s “Sundials” (1997), Reel Big Fish’s “The Set Up” (1998), and Stars’s “The Big Fight” (2004).

<sup>13</sup>While certain memorable sections serve as autonomous “structural downbeats” within the form (see Cone [1968]), others act as connective structures between those memorable moments. As ligaments link to bone, so non-autonomous sections link to autonomous ones. Notice that I am not using the familiar terms “dependent” and “independent” here, which are typically used to describe *thematic* relationships between sections (a facet addressed by my recapitulatory/non-recapitulatory dichotomy). An autonomous section is not necessarily thematically independent—the repeated chorus is a great example of this. Following the bridge, we often arrive at a third chorus which, though very much thematically dependent (namely on the previous two choruses), represents a memorable moment that functions on a higher dramatic plane than the thematically independent bridge. Likewise, a song’s intro, while initially appearing thematically independent (since it is the first thing we hear), is soon forgotten once the more memorable verse melody arrives.

A similar sectional division may also be observed in sonata theory. With his highly influential conception of the *Gang* and *Satz*, A. B. Marx created a distinction between that which can be regarded as mobile and that which can be regarded as stable, as evidenced in the following quotation: “The *Gang* is the first fundamental form in music. ... In the *Gang* itself, no satisfaction can be found; rather the very act of moving forth is a search for satisfaction. ... A thought that is closed in and of itself is called a *Satz*. Its conclusion is its characteristic feature. ... The *Satz* is the second fundamental form in music”; see Marx ([1845] 1997, 67–68). Following Marx’s lead (and

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more immediately, that of Schoenberg and Ratz), William Caplin (1998) has recently identified “tight-knit” structures like the eight-measure period and sentence as the building blocks for memorable themes. Conversely, transitions connecting those themes are described using language like “loose-knit” and “passage work.” Like Marx’s *Gang*, Caplinian “passage work” is not memorable in and of itself, and often appears either between memorable themes (as in a transition between first and second themes) or after a memorable theme (as in a coda).

<sup>14</sup>Exact meanings of the terms recapitulation, return, and reprise tend to vary from author to author, but are always used to denote the reappearance of some previously heard section. This could mean a general reappearance of material, a reappearance of the opening material, or a reappearance of musical material borrowed from another track on the same album (as in the reappearance of “Breathe” at the end of “Time” in Pink Floyd’s *The Dark Side of the Moon*). Throughout this article, I use the term recapitulation not to denote the reappearance of the opening material, or to evoke sonata form (as does Everett [2009, 156]), but generally, to denote the reappearance of previously heard thematic material.

<sup>15</sup>As noted earlier, a thematically dependent version of these cathartic endings can be found in Spicer’s (2004) cumulative forms. These endings, which are quite common in pop-rock, result in thicker, accumulative textures presenting recapitulatory thematic material such as the chorus. Similar thematically dependent yet cathartic endings regularly occur in the Gospel repertoire from the first half of the twentieth century, where ending “sing-alongs” are common (e.g., Arizona Dranes’s “He is my Story” and The Soul Stirrers’ “I’m Gonna Tell God”; thanks to Nick Stoia for mentioning these examples to me). Cumulative endings seem to derive their particular apotheosis from the fact that they “release” thematic material that has been built up throughout the song. With the non-recapitulatory endings of terminal climaxes, such an experience cannot be possible, since the listener has no idea what thematic material will be presented in the song’s ending (at least on first listen). However, since verifying these claims empirically would require controlled perception experiments involving human subjects, these claims should be considered to be only informal observations.

A strikingly similar formal design occurs frequently in the Afrocuban repertoire, including salsa. After a song’s *cuervo* structure—a paradigmatic formal design comparable to a rock verse–chorus design—a new section known as the *coro/soneto* is often introduced, complete with new harmonic, rhythmic, melodic, and lyrical material. An example of this form occurs in Los Van Van’s “Soy todo (amparame)” (1996), where the ending *coro* section modulates to the minor mode (the preceding *cuervo* is all in major), then new accompanimental patterns and

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melodies are used to set a long call-and-response that ultimately settles on the repeated lyrics “Ay dios, amparame.” An older example occurs in Septeto Nacional’s version of the classic *son* composition “Mueve la cintura” (2010), the *coro* of which uses new musical material to set the yet-unheard song title. My thanks go out to Chris Stover for revealing this similarity to me in a personal correspondence.

<sup>16</sup>Agawu (1984, 159–160).

<sup>17</sup>For example, in his analysis of Debussy’s *Feux d’artifice*, David Lewin (1993) identifies three different climaxes over the course of the four-minute piece, each of which is informed by a different parameter.

<sup>18</sup>See Meyer (1980), Agawu (1984), and Patty (2009).

<sup>19</sup>Furnes’s dissertation is not specifically focused on climax as a theoretical concept, but rather confronts the phenomenon en route to determining a possible psychological basis for what makes certain pop songs “hits.” His criterion for such songs is “memorability,” which measures a listener’s ability to process a given musical stimulus as relatively marked. According to Furnes, if a given section conforms *too much* to a given “image schema” (or expected profile), it will not be memorable. Yet if it deviates too much from our assumptions about that section, it will also be forgettable. Thus, memorability is an intricate “balance between organization and distinctiveness”; see Furnes (2005, 96).

<sup>20</sup>It is worth noting that while Patty (2009) attempts to disentangle the uneasy and assumed alliance between acceleration and tension (and their correlaries, deceleration and relaxation) through his “pacing scenarios,” he takes for granted both “tension” and “moment” as necessary components of musical climax.

<sup>21</sup>Burnham (1995, 9–13). In drawing analogies between sonata form and rock forms, the recapitulation is certainly akin to the return of the third chorus just after the bridge, though compressed eight-bar bridges achieve a minuscule amount of contrast in comparison to the *Eroica* development. Despite these similarities in basic architecture, I am reluctant to see these practices as analogous since my theory is contextually rooted in rock’s compositional syntax.

<sup>22</sup>Besides the trivial case of so-called “truck-driver modulations” (direct step modulations often found in the final choruses of country and pop songs), sections do occasionally occur re-written—not simply transposed—with higher pitches later in the song. The third verse of Jose Feliciano’s cover version of “Light My Fire” (1968, 2:07) and the second chorus of David Nail’s “Turning Home” (2010, 2:09) exemplify this technique.

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<sup>23</sup>This tends to be truer of electric and electronic instruments; acoustic instruments such as voices and drum sets possess greater dynamic freedom. Readers interested to learn more about trends in modern signal processing should consult Hodgson (2010).

<sup>24</sup>Meyer (1980, 194) defines syntactic climax as “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.”

<sup>25</sup>This is not to say that moment climaxes *never* occur in rock music. Queen’s “Bohemian Rhapsody” (1975)—a song often included in discussions of climactic gestures in rock music—may provide the most famous exception to this observation.

<sup>26</sup>This is why Example 4 does not include many parameters that are essential to moment climaxes, including changes in harmonic rhythm and increases in dissonance.

<sup>27</sup>For more about the characteristic rhythmic features of the experimental rock genre known as math-rock (or math-metal), see Cateforis (2002) and Pieslak (2007).

<sup>28</sup>A more thorough analysis of “The Crowing” appears as an example of three-part TCFs later in the article.

<sup>29</sup>Agawu (1984, 160).

<sup>30</sup>Agawu (1984, 175–76) describes Schumann’s song forms as typically following the dramatic curve of “ascent to a highpoint followed by a descent,” but also notes that “transformations of this basic shape are possible ... including the creation of a series of miniature curves leading to one supreme highpoint.” Patty (2009, 328) suggests several precedents for Agawu’s “series of curves” approach to musical structure, including early twentieth-century theorists August Halm, Ernst Kurth, Hans Mersmann, Arnold Schering, and Kurt Westphal. Most notable is the *Kraftwelle* theory of Ernst Kurth, in which local events (cf. Agawu’s “miniature curves”) lead to a *Gipfelwelle* (or “apex wave,” cf. Agawu’s “supreme highpoint”), which discharges the energy accumulated by all preceding *Kraftwellen*. As shall be seen, this series of miniature curves leading to a supreme highpoint is a common dramatic structure for TCFs.

<sup>31</sup>Since all TCFs utilize non-recapitulatory thematic material for their endings, one-part TCFs are not possible under the current definition, though it is true that many strophic folk songs heighten the import of their final thematically dependent strophe through a variety of means, usually through lyrical devices such as the “time-shift” narrative device identified by Jocelyn Neal (2007).

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<sup>32</sup>This facet of terminal climaxes is similar to the second section of Stephenson's compound binary form, which is "generally structured around several repetitions of a single melodic line or chord progression or both" (Stephenson [2002, 142]).

<sup>33</sup>The verse–chorus pair is exactly what Covach (2005) refers to as a "compound section," which is a smaller component of my verse–chorus section group, containing every iteration of verse and chorus. These numbered pairs correspond to the numbered verse that begins each pair. Often, this results in roman-numbered pairs that contain a different arabic-numbered verse and chorus. This is due to the somewhat common practice of withholding the chorus until after the second verse.

<sup>34</sup>If two adjacent sections are based on the same thematic material, yet are recognizably different in terms of timbre, texture, rhythm, meter, or some other salient musical parameter, I use the familiar "prime" symbol (´) to identify successive presentations. While A and B represent thematically distinct sections, C and C´ represent two distinct presentations of shared thematic material.

<sup>35</sup>When a climactic section group contains two distinct presentations of the same thematic material (A and A´), it can be difficult to identify one or the other as the singular terminal climax. In some cases, A acts as a warm-up for the more climactic A´ presentation. Other times, A´ acts as a varied repetition of the climactic A presentation that preceded it. I acknowledge the possibility that others may find a different presentation of the climactic theme more suited to the "TC" label than the one I have identified.

<sup>36</sup>Progressions in which the roots of triad- or fifth-doubled chords form the minor pentatonic scale account for the fifth of Everett's six tonal systems common to rock music; see Everett (2004). For more on gapped 5-cycles in rock music, see Capuzzo (2009, 159).

<sup>37</sup>Throughout this article, I prefer to talk about "pitch centers," as is suggested by Doll (2007, 15), as opposed to keys and functional tonality.

<sup>38</sup>See Biamonte (2010, 105). Everett's criticism of calling such progressions "Aeolian" is based on his opinion that the  $\flat$ VII chord is more of a melodic neighbor motion than a functional dominant: "examples truly in the Aeolian mode would typically use a minor dominant; such a chord would have no place in these pentatonic-system songs" (Everett [2004, 19]).

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<sup>39</sup>“Rogue Dominant” is a term introduced by Doll (2007, 19). However, many recent commentators have endorsed the  $\flat$ VII chord as a dominant-substitute in rock music; see especially Moore (1995), Burns (2008, 74), and Capuzzo (2009, 162).

<sup>40</sup>Everett (2004, 19).

<sup>41</sup>Burns (2008, 64–65).

<sup>42</sup>Throughout this article, I utilize definitions of conventional sections found in Everett’s book *The Foundations of Rock* (2009, 145–52) as a point of departure.

<sup>43</sup>“Four-on-the-floor” is an expression used to describe a drum set pattern in which the performer places evenly spaced kick drum attacks underneath a backbeat. At faster tempi, this can mean even quarter notes paired with half-note ligatures in the snare (2:1 ratio), but at this slower tempo, the drummer uses evenly spaced eighth notes in a 4:1 ratio against the snare backbeat.

<sup>44</sup>We can observe similar statistical analogies in many terminally climactic songs. For example, the highest vocal notes between sections in Radiohead’s “Faust Arp” (shown in Example 2) correspond to those sections’ respective positions on the climactic ladder:  $F\sharp_3$  in the verse (third rung),  $B_3$  in the chorus (second rung), and  $F_4$  in the terminal climax (highest rung).

<sup>45</sup>Doll (2011). Though the progression in the verse of “Rocks, Tonic” does contain the relative major chord ( $A\flat$ ), songs in which no tonic major chord presents itself until the chorus abound in the pop/rock repertoire. Spicer (2009) describes this phenomenon as an “emergent” tonic. Take, for example, the Gin Blossoms’ “Hey Jealousy” (1989), whose ambiguous  $D-E-F\sharp$  verse progression can be heard locally in D Lydian, but also as a  $IV-V-vi$  progression within the context of the clear A major chorus.

<sup>46</sup>In rock music, ambiguous pentatonic root progressions also tend to exist within the shadow, so to speak, of their relative major. This means that we can also hear the move to  $A\flat$  foreshadowed by the  $A\flat-E\flat$  progressions in the verse, inasmuch as that pair of chords still exhibits a tonic–dominant relationship.

<sup>47</sup>By “modulation” I mean only a change in pitch center over time—even if that “change” is better understood as a move from ambiguous or competing centers to a clearly defined center.

<sup>48</sup>This is a clear example of what Leonard Meyer would deem a statistical climax; see Meyer (1980). The extreme dynamic difference between the verse–chorus group and the climactic group shown in this waveform is likely a product not only of different instrumentations (e.g., the introduction of kick drum and crash cymbal in the climax),

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but also studio production. By applying what is known as a “limiter” in the verse and chorus, the engineer can ensure that the average track level never reaches its maximum until the terminal climax.

<sup>49</sup>The half-time metric modulation (which merely involves doubling the length of the beat) is a common device used in terminal climaxes. It is especially common in punk/emo-influenced genres, where double-time grooves are so common that the shift to half-time creates a marked release of kinetic energy. Though the rhythm section does not move to half-time, the vocal rhythms in the climax of “Table for Glasses” (see Examples 10–11) slow from four notes per bar (N N N N) in the verse to two (B. N) in the climax.

<sup>50</sup>The song had been recorded and re-released on an LP called *A Mark, A Mission, A Brand, A Scar* (2003) just prior to the band’s appearance on the show. The performance may be viewed at:

<<http://www.youtube.com/watch?v=cgix4qUO22k>>.

<sup>51</sup>Palm-muting is a technique whereby a guitarist rests the knife-edge of the hand on the strings just above the bridge, rendering the timbre of the instrument more percussive.

<sup>52</sup>These statistical increases in the terminal climax also parallel the kinesthetic responses of the performers. Guitarist Chris Carrabba extends his modest palm-muting and open strumming to wild, sweeping arm gestures in the terminal climax, and drummer Mike Marsh’s movements become so exaggerated that he actually leaves his drum throne for a few dramatic cymbal crashes.

<sup>53</sup>Guy Capuzzo has recently applied similar models to some recent rock music (including Radiohead’s “Karma Police” [1997], which is also terminally climactic) under the guise of “sectional centrality.” For more on sectional centrality, as well as a concise bibliography on directional tonality, see Capuzzo (2009).

<sup>54</sup>The emergence of longer rock songs in the 1970s has much to do with the popularity of Album-Oriented Radio, a new kind of radio programming that did not subscribe to the three-to-four-minute glass ceiling previously imposed on rock singles by popular radio stations. Albin Zak (2008) addresses such large forms in music of the 1970s.

<sup>55</sup>This is similar to the anthemic feeling Everett associates with the ending of “Hey Jude”: “Sometimes repetition can be so continuous as to function as a be-here-now mantra that savors the moment to promote a transcendent anthemic experience” (Everett [2009, 154]).

<sup>56</sup>Everett (2004) rightly points out that common guitar voicings of this progression, which involve parallel fifths and octaves, result in structures that are thoroughly *melodic*, rather than harmonic.

<sup>57</sup>Burns (2007, 64).



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<sup>58</sup>In fact, the piece's total pitch collection can very nearly be represented by a diatonic octad—C–G–D–A–E–B–F#–C#—that, as Guy Capuzzo (2009, 162) has pointed out, amounts to nothing more than a mixture of Dorian and Aeolian modal collections. This octad accounts for everything except the G# heard repeatedly in the melody of the climax.

<sup>59</sup>For more on this inter-album story, see the official Coheed and Cambria/*Amory Wars* fansite at <http://forums.cobaltandcalcium.com/showthread.php?t=15584>.

<sup>60</sup>This particular instance of the gapped 5-cycle progression seems to suggest not the relative major A, but the Mixolydian E in its melodic structure. Note especially the G#–F#–E and A–G# motions that seem to suggest scale degrees  $\wedge^3\text{--}\wedge^2\text{--}\wedge^1$  and  $\wedge^4\text{--}\wedge^3$ , respectively.

<sup>61</sup>For similar examples of this technique, see their songs “Everything Evil” (2001) and “Three Evils” (2003).

<sup>62</sup>Since the durational expansion from two-part to three-part to extended forms takes place primarily in the middle bridge group, as the total duration increases, the proportion of the terminal climax relative to the total track length decreases, and the position of the terminal climax within the track moves nearer to the end. While the position of the terminal climax within the total track duration approximates the golden ratio in two-part forms, the average position of the terminal climax for all the examples in this article is skewed by the three-part and extended forms, bringing the average ratio to .712.

<sup>63</sup>While a narrative concept album deploys a linear narrative across all the tracks on an album, concept albums simply unify those tracks with similar subject material. Concept albums gained popularity in the late 1960s, partially due to the success of *Sgt. Pepper's Lonely Hearts Club Band* (1967). Narrative concept albums began to emerge in 1970s progressive rock (e.g., Jethro Tull's *Thick as a Brick* [1972]), and they enjoyed a surprising resurgence in post-millennial screamo, beginning with Cursive's *Domestica* (2000), which chronicles the lead singer's real-life divorce drama, and including Boys Night Out's *Trainwreck* and Armor for Sleep's *What to Do When You are Dead*, both released in 2005. Recorded rock operas are quite rare in the twenty-first-century mainstream; the only two others are, to my knowledge, the Who's *Endless Wire* (2006) and Green Day's *American Idiot* (2004), the latter of which received a Broadway staging in 2010.

<sup>64</sup>“The Crane Wife 1 & 2,” based on a Japanese folk tale, tells the story of a man who rescues an injured crane. Unbeknown to the rescuer, the crane turns out to be a magical being who falls in love with him for his compassion and becomes his human wife. The wife is exceptionally gifted in the art of weaving, and quickly makes a fortune for

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their family, but warns the man never to enter her weaving room while she is working. When the man becomes worried after finding blood and feathers in some of his wife's weaving, he defies her by entering her studio, just in time to see her revert to a crane and fly out the window. Though this story is completed in "The Crane Wife 3," musically speaking, the two tracks function autonomously (part three's lyrics only contain the story's dénouement).

<sup>65</sup>See Everett (2009, 393) and Stephenson (2002, 141), respectively, for discussions of the multi-part structures in these two songs.

<sup>66</sup>The fact that the Decemberists include the music on one track is itself indicative of its cohesion, or at least of their aspiration toward that cohesion. Had the music spanned two separate tracks on the album, one would be more inclined to partition them accordingly (though "Brain Damage" segueing into "Eclipse" at the end of Pink Floyd's *The Dark Side of the Moon* could be an interesting, if exceptional, case of a possible inter-track terminal climax). This line of reasoning is, however, only applicable when thinking of songs as recorded, studio-produced entities. The practice of fluidly blending and mixing songs in live performances so as to deliberately blur the barrier between one song's ending and another's beginning, while most common in so-called "jam bands" such as Phish, the Grateful Dead, or the Disco Biscuits, is common to many genres. When such a concert is recorded and released on CD, placing track breaks can become somewhat arbitrary. Daft Punk's live album *Alive 2007* (2007) is a good example of this, where the band not only blends tracks as described above, but each track is itself a mash-up of two existing Daft Punk songs mixed together simultaneously (e.g., Track 5 is "Around the World"/"Harder, Better, Faster, Stronger"). Butler (2006) describes the differences between studio and live versions of electronic dance music in detail.

<sup>67</sup>It is also possible to hear Chorus B as a *reference* to Chorus A, perhaps even as a refrain or homage. This reappearance could then be interpreted as a signal that, even though a great deal of change has occurred since the song's beginning, we are still hearing the same song.

<sup>68</sup>Cobain showcased this technique most effectively on Nirvana's highly produced recordings, notably in "Smells Like Teen Spirit" (1991), "Pennyroyal Tea" (1993), and "Heart-Shaped Box" (1993).

<sup>69</sup>This is especially true in "Rocks, Tonic, Juice, Magic," "The Crowing," and "Hands Down" (analyzed earlier in this article), each of which features no harmonic change between verse and chorus, but does modulate in the terminal climax.

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<sup>70</sup>Middleton (1990, 125) provides a comparative account of the term “riff” in many divergent popular styles, even considering it synonymous with “musical idea.” Tool often utilizes guitar riffs over a static D pedal in their music—so much so that drummer Danny Carey tunes his drums to the key of D minor. Changing bass notes underneath a repeated guitar riff is a common strategy used by bassist Justin Chancellor to add textural contrast in bridge-functioning sections. See the Tool songs “Forty-six and Two” (1996, 5:05) and “Schism” (2001, 4:40) for additional examples of this changing bass technique.

<sup>71</sup>Covach (2006, 49). The sole exception is the four-measure coda that ends “Lady Madonna,” a song in “broken AABA form.”

<sup>72</sup>For example, the true formal complexity involved in “Happiness is a Warm Gun” (1968) stems from its fragmented, through-composed formal design, and the remarkable ending of “Hey Jude” (1968) is only possible because of the non-recapitulatory terminal climax. Both of these examples fall just outside of Covach’s chosen sample period, though Everett (1999, 17) claims the band had at least foreshadowed this hallmark of their late style as early as 1965 in “Ticket to Ride.”

<sup>73</sup>Kramer (1988, 25).

<sup>74</sup>This convention is most pronounced in instrumental “post-rock” bands such as Explosions in the Sky, Sleepy Eyes of Death, Six Parts Seven, and Russian Circles. Much like blues players are known to shape improvisations around certain 12-bar harmonic patterns, terminal volume climaxes in post-rock have reached a point of recognition where improvisations can be shaped around this paradigm. Sleepy Eyes of Death acknowledges this convention in an interview, stating that “[t]here’s something inherently satisfying about building tension throughout a song and coming to the end of that song in an explosive release ... it makes for a very natural progression.” See Osborn (2010, 265).

<sup>75</sup>This approach to analyzing experimental rock compositional practices since the late 1960s, which I have elsewhere called the “experimental dialectic” (Osborn 2010, Chapter 1), is similar to theories of genre presented in Covach’s “hippie aesthetic” (2009, 273) and Holt’s “mainstream dialectic” (2007, 24).

## APPENDIX A: SOME ADDITIONAL POST-1990 TERMINALLY CLIMACTIC SONGS

Artist	Song	Year Released	Climactic group begins at	Total track length
Alice in Chains	“Would”	1992	2:41	3:27
Alkaline Trio	“Mr. Chainsaw”	2001	2:27	3:05
Animal Collective	“I Think I Can”	2009	5:00	7:10
	“What Would I Want, Sky”	2009	3:10	6:46
	“Brother Sport”	2009	3:01	5:59
	“The Purple Bottle”	2006	4:05	6:48
Arcade Fire	“No Cars Go”	2007	3:13	5:44
	“Crown of Love”	2004	3:45	4:42
At the Drive In	“Invalid Litter Department”	2000	4:40	6:07
Björk	“Pagan Poetry”	2004	3:56	5:13
	“Crystalline”	2011	4:18	5:08
BradleyHeartVampire	“Do Not Expect Too Much From the End of the World”	2008	2:09	2:56
	“You Might Already Have Me, Rossi”	2012	0:50	2:02
Bright Eyes	“Firewall”	2011	6:30	7:17
Circle Takes the Square	“Interview at the Ruins”	2004	3:43	5:10
Claire Bowditch	“Lips Like Oranges”	2005	2:46	3:57
Coheed and Cambria	“Everything Evil”	2001	4:26	5:51
	“Three Evils”	2003	3:14	5:09
	“Subtraction”	2012	2:09	3:07
Coldplay	“Politik”	2002	3:20	5:19
The Cranberries	“Daffodil Lament”	1994	3:30	6:07
Dashboard Confessional	“The Best Deceptions”	2001	3:21	4:14
	“Screaming Infidelities”	2001	2:44	3:46
Death Cab for Cutie	“Marching Bands of Manhattan”	2005	2:00	4:15
Deerhoof	“Fresh Born”	2008	3:09	3:35
Deftones	“Root”	1995	3:10	3:41
Emery	“The Weakest”	2005	2:59	4:04
	“Walls”	2004	2:46	3:24
Every Time I Die	“I Been Gone a Long Time”	2003	2:05	3:05
Fairweather	“If They Move, Kill Them”	2001	2:48	4:03
The Fleet Foxes	“Ragged Wood”	2008	2:57	5:07
	“Mykonos”	2009	2:25	4:35
	“Helplessness Blues”	2011	2:48	5:03
Foo Fighters	“I’ll Stick Around”	1995	2:56	3:53
The Format	“Career Day”	2003	3:07	5:47
Frightened Rabbit	“My Backwards Walk”	2008	2:55	3:30
	“Skip the Youth”	2010	4:48	6:19
Fugazi	“Epic Problem”	2001	3:00	4:00
Funeral For a Friend	“10:45, Amsterdam Conversations”	2003	2:33	3:46
	“Streetcar”	2005	2:10	3:39
	“Escape Artists Never Die”	2003	2:07	5:27
	“Red is the New Black”	2003	4:04	5:15
Further Seems Forever	“Rusted Machines”	2012	1:58	3:17
He is Legend	“China White”	2004	2:05	4:27
	“The Greatest Actor Alive...”	2004	2:27	3:17
Imogen Heap	“Hide and Seek”	2005	3:24	4:29
Jesse Tree	“Gloves for Snow Enthusiasts”	2001	3:56	5:53
The Juliana Theory	“Duane Joseph”	1999	3:05	4:01
Los Campesinos!	“Baby I Got the Death Rattle”	2011	3:06	4:13

The Mars Volta	“Goliath”	2008	3:51	7:16
Mew	“Am I Wry”	2003	3:24	4:55
	“Introducing Palace Players”	2009	3:50	4:46
The National	“England”	2010	3:53	5:41
No Motiv	“So What”	1999	1:12	2:01
	“Born Again”	2001	3:03	4:18
Neutral Milk Hotel	“Oh Comely”	1998	6:03	8:18
Okkervil River	“John Allyn Smith Sails”	2007	3:10	4:33
P.U.S.A.	“Peaches”	1995	1:36	2:54
Paramore	“My Heart”	2005	2:19	3:59
Park	“Pomona For Empusa”	2003	3:38	4:17
	“Gasoline Kisses for Everyone”	2003	2:59	4:24
	“Dear Sweet Impaler”	2003	3:48	5:19
Parkway Drive	“Romance is Dead”	2005	3:32	5:17
PJ Harvey	“The Words that Maketh Murder”	2011	2:44	3:46
A Perfect Circle	“Three Libras”	2000	2:46	3:40
Radiohead	“Karma Police”	1997	2:34	4:22
	“You and Whose Army”	2001	1:54	3:11
	“Sit Down, Stand Up”	2003	3:03	4:20
	“Faust Arp”	2007	1:24	2:10
	“All I Need”	2007	2:56	3:49
Rage Against the Machine	“Wake Up”	1992	4:31	6:06
	“Freedom”	1992	4:23	6:07
	“Down Rodeo”	1996	4:08	5:21
	“Guerilla Radio”	1999	3:00	3:42
	“Roll Right”	1996	3:18	4:23
	“Bullet in the Head”	1992	2:54	4:26
Red Hot Chili Peppers	“Under the Bridge”	1991	3:13	4:33
Reel Big Fish	“Big Star”	1998	2:27	3:35
Refused	“The Deadly Rhythm”	1998	2:23	3:35
Saosin	“Seven Years”	2003	2:17	3:15
	“I Can Tell”	2003	3:07	3:41
Saves The Day	“Firefly”	2001	1:22	2:52
Say Anything	“Belt”	2003	3:17	4:24
Shadows Fall	“Thoughts without Words”	2002	3:43	4:32
Sigur Rós	“Untitled 1”	2002	4:32	6:39
	“Festival”	2008	4:40	9:24
Silverchair	“Across the Night”	2003	3:16	5:37
Smashing Pumpkins	“Geek USA”	1993	4:02	5:14
Soulfly	“Call to Arms”	2002	0:58	1:22
Stars	“Set Yourself on Fire”	2004	3:30	5:39
	“In Our Bedroom After the War”	2007	4:25	6:47
	“The Last Song Ever Written”	2010	1:47	3:17
Sufjan Stevens	“The Predatory Wasp of the Palisades is Out to Get Us!”	2005	2:30	5:23
System of a Down	“Sugar”	1998	1:48	2:38
Tool	“Aenima”	1996	4:10	6:42
	“Undertow”	1993	3:36	5:22
	“46 and 2”	1996	4:05	6:07
	“Vicarious”	2006	6:34	7:11
	“Hooker with a Penis”	1996	3:47	4:36
True Dream	“The Stare of Death”	2011	2:29	3:41
Two Tongues	“Try not to Save Me”	2009	2:19	4:11
U.N.K.L.E.	“Nursery Rhyme”	1998	3:02	4:39
We Were Promised Jetpacks	“Pear Tree”	2011	1:45	6:36

## APPENDIX B: DRUM SET NOTATION KEY

