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Rhythm and Meter in the Music of Dream Theater

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By

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For my late mother, Barbara Ann McCandless.
ACKNOWLEDGEMENTS

“...decades of progressive rock have followed the first wave of the 1970s; most of this music is yet to be accounted for historically, let alone music-analytically.”

My gratitude must first be extended to John Covach, for when I read this excerpt from his 1997 article on Yes’s “Close to the Edge,” my intention to write a dissertation on the music of Dream Theater crystallized. I had been considering research and writing on jazz (an idiom with which I had more performing experience), but after reading Covach’s words, I felt that it was my responsibility to undertake a project dealing with the music of Dream Theater, a band that I had been listening to regularly for ten years.

The credit for my experience with Dream Theater’s music goes to Kyle Lavery, a childhood friend of mine whom I idolized during my adolescence. I would like to thank him for introducing me to the band’s music, and, more importantly, for introducing me to bass guitar and inspiring me to learn the instrument.

Mark Spicer, in the acknowledgements section of his 2002 dissertation, labels himself a “renegade” for being the first Yale student to publish a dissertation on popular music. My decision to pursue the analysis of Dream Theater’s music, on the other hand, was met with no shock, dismay, or even hesitancy by my faculty at Florida State. I thank them for this. I believe that this reaction says quite a bit about the open-mindedness of the faculty at Florida State; however, I also believe it is representative of the change in the field of music theory regarding the acceptance of popular music studies in the last decade, and it is something I am very proud of. I would particularly like to express my appreciation to my advisor, Professor Jane Piper Clendinning, for her positive guidance and support throughout my research, as well as to Professors Evan Jones, Michael Buchler, and Michael Bakan for their valuable insights and suggestions.

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ABSTRACT

This dissertation examines the compositions of the American progressive metal band Dream Theater from a music-theoretical perspective. Specifically, this project identifies the primary stylistic elements the band employs in its compositions, focusing on the complex rhythmic and metrical patterns that characterize its music in particular and the subgenre of progressive metal in general. In doing so, it isolates the musical elements that have helped differentiate Dream Theater from other progressive rock and heavy metal bands, and have provided me with complex—and often surprising—experiences of temporality. Additionally, this dissertation analyzes the ways in which rhythmic and metrical phenomena contribute to formal delineation in the band’s music.

The research in this dissertation proceeds from a brief history of Dream Theater into a two-part analytical discussion. First, I identify the band’s most salient musical traits, making connections between each trait and progressive metal’s parent styles of progressive rock and heavy metal. I argue within this part of the discussion for the band’s sound to be metaphorically conceptualized as possessing a structural core of progressive rock and a stylistic periphery of heavy metal. Second, I proceed to an in-depth examination of the most commonly-encountered rhythmic and metrical complexities in the band’s music. In order to describe how these phenomena typically function within an overall work, I examine two compositions in their entirety, including “Sacrificed Sons,” which is one of the most metrically-complex songs in the progressive metal style.

This project’s secondary aim is to more aptly describe the nature of meter in contemporary music. As such, my analytical techniques—many of which are adapted from the contributions of Justin London, John Roeder, Gretchen Horlacher, and Christopher Hasty—are often non-standard, as I endeavor to reconsider—and in some cases, redefine—some terminology that I consider to be problematic. This dissertation also introduces new terms and concepts, in order to explain rhythmic and metrical phenomena that either haven’t been addressed at all in the scholarly literature or have been discussed only in passing.
CHAPTER 1
AN INTRODUCTION TO DREAM THEATER

One of the most commercially-successful heavy metal subgenres became known as “progressive metal.” Durrell S. Bowman notes that Rush’s song “Bastille Day” (1975) was perhaps the earliest example of this “musicianly” style,¹ though it is generally accepted that Queensrÿche’s concept album Operation: Mindcrime (1988) is the first full-length exemplar. Despite the earlier works by these bands, however, the most commercially-visible torchbearer for the style is the Long Island-based group Dream Theater. The fanzine Prog Archives asserts that “Dream Theater quickly established themselves as the most popular band of the subgenre, which also led to them becoming a reference in terms of style. Every new progressive metal band was compared to them.”² This idea prompted Robert Taylor to name the band “the godfathers of progressive metal” in his review of its 2002 album Six Degrees of Inner Turbulence.³

Despite its critical and popular successes, however, Dream Theater has been virtually ignored in the scholarly literature on recent progressive rock and heavy metal.⁴ Additionally, I believe that the few published sources on progressive metal misrepresent the subgenre to a degree and require clarification. While lacunae are understandable, given the lack of scholarly attention to this style of music, the omission of Dream Theater from the conversation is striking. However, advocacy forms only a small part of my motivation for undertaking this project. I am more interested in analyzing the musical materials employed by the members of Dream Theater in their compositions, which have captivated me for over a decade of listening and provided me

⁴ John Covach remarked at the 2007 annual meeting of the Society for Music Theory in Baltimore that “everyone is a Dream Theater scholar,” though I have come across a scant few. In fact, the only music-theoretical work on the band’s music comes from an undergraduate thesis that contains no references (Kris Shaffer, Transcending Rock Tradition: Form, Text and Integration in the Music of Dream Theater (undergraduate honors thesis, Lawrence University, 2002)).
with surprising—and often confusing—experiences of temporality. I investigate some of these materials in this dissertation, focusing primarily on the complex rhythmic and metrical patterns that typify the band’s music in particular and the subgenre of progressive metal in general. In doing so, I hope to identify the musical elements that have helped differentiate Dream Theater from other progressive rock and heavy metal bands.

Chapter 1 provides an historical account of Dream Theater’s career and argues for the necessity of academic attention to its oeuvre. Chapter 2 includes a detailed review of the scholarly literature pertaining to meter and popular music analysis. This chapter also introduces the various analytical approaches that I have adapted and developed for use in this dissertation. I discuss Dream Theater’s most salient musical traits in Chapter 3, providing definitions and giving examples describing each trait. Chapter 4 focuses on the rhythmic and metrical phenomena that are routinely encountered in the band’s songs, and describes how they typically function within the context of an overall work. Chapter 5 analyzes complete examples from Dream Theater’s catalog, including the song “Sacrificed Sons,” which is one of the most metrically-complex compositions in the progressive metal style. This chapter also incorporates analytical approaches discussed in Chapter 2, as well as terminology from Chapters 3 and 4. The final section, Chapter 6, summarizes my theoretical and analytical conclusions regarding analyses presented in the previous chapters, and discusses Dream Theater’s influence on the progressive metal subgenre and the popular music scene in general.

A History of Dream Theater

In order to contextualize Dream Theater’s music, it is necessary to address elements of the band’s history related to its sound and style. In this section, I partition Dream Theater’s career into five periods based largely on changes in personnel. I also provide background information on each studio album’s release, including record label affiliation, critical reception, and sales figures. Additionally, I focus on the band’s primary musical influences, and address the members’ collective vision for each album, using quotations from interviews wherever possible.

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The Majesty Period—1985-1987

The birthplace of the band that became Dream Theater is practice room E19 in the basement of a Berklee College of Music building. In September of 1985, guitarist John Petrucci peered through the practice room’s window and saw Mike Portnoy playing drums while wearing a Rush T-shirt. As Rush was one of Petrucci’s favorite bands, he decided to talk to the drummer after he had finished practicing, and struck up a conversation in the cafeteria. Soon after, Portnoy, Petrucci and bassist John Myung (Petrucci’s lifelong friend and fellow King’s Park, NY native) began to rehearse Iron Maiden and Rush songs every weekday night from six o’clock until midnight in that practice room, and eventually began to write their own songs. Just as the band Rush had played a part in the genesis of the fledgling group, and was a huge influence on its compositions, it also influenced the group’s original name. Portnoy recalls listening to Rush’s “Bastille Day” on the corner outside Berklee on a “boombox,” noting to Petrucci that the song sounded “majestic,” and they immediately decided that the band should call themselves Majesty. Majesty began as a three piece instrumental ensemble, but around December of 1985, Kevin Moore, a lifelong friend and former neighbor of Petrucci, joined the band as a keyboardist. However, Moore was enrolled at SUNY Fredonia, and the four players soon decided that they were serious enough about forming a band that they would all drop out of college after the Spring semester to pursue a music career full-time. They also decided around this time that they would need a vocalist to complete the band. In May of 1986, Chris Collins, another childhood friend and neighbor of Petrucci’s from King’s Park, was recruited (because of his accurate impersonation of Queensrÿche vocalist Geoff Tate) and joined Majesty—though his tenure with the band only lasted until November of that year. Using a four-track recorder purchased by Portnoy’s grandmother, Majesty recorded a demo that Portnoy immediately copied and shipped around the globe in an attempt to gain recognition. Attracted to its unique sound, which Wilson succinctly characterizes as “an agitated version of Rush,” many club owners in Long Island booked the band. Majesty’s first gig was on May 28, 1986 at the Sundance in Bay Shore, NY, Wilson, “Images,” 30.
7 Despite the significant amount of influence Rush has had on Dream Theater’s music, Bowman’s ethnographic surveys from 1996 and 2000 indicate that less than 50% of Rush fans were also Dream Theater fans (Bowman, Permanent Change, 286).
8 Dream Theater, Score DVD Documentary (Rhino Entertainment, 2006).
9 Wilson, “Words,” 33-34.
10 Wilson, “Images,” 12.
where the band confused the crowd with its stylistic range, which far exceeded that of mainstream heavy metal bands. Wilson notes that early on, Majesty was “exposed to a hotchpotch of influences that ranged from Rush, Yes and Iron Maiden to Steve Vai, Al Di Meola and Steve Morse, and also was affected by the classics Beethoven, Bach and Tchaikovsky.”

Petrucci reveals that the band members were very much into heavy metal, but also traditional progressive rock from bands such as Yes: “You know, that’s music with odd time signatures, long songs, obscure arrangements and extended solos and unisons, and all of that stuff influenced us.” Since Majesty’s polystylistic music was considered “so different [from] what everybody else was doing at the time” in the genre of heavy metal, it did not immediately catch on with a larger audience, and even local gigs in Long Island dried up. Additionally, the band members felt that they needed a truly professional vocalist in order to sharpen their sound and attract more interest.

**Charlie Dominici and Dream Theater: The First Period—1987-1989**

After auditioning “around a hundred” male and female vocalists in the beginning of 1987, Charlie Dominici tried out for the band in September 1987 and soon after was invited to join as a full member. In early November, Majesty recorded another demo tape with Dominici at the helm, and Portnoy distributed it to several record labels. One such label was the newly-formed Mechanic Records in New York, which showed interest in the form of a seven-album deal. Majesty officially signed with Mechanic in June 1988 and, within a month, began recording *When Dream and Day Unite* in Kajem studios.

The style of music on the album was considered a blend of ‘70s-era progressive rock with contemporary heavy metal, and was lauded by critics from important heavy metal magazines such as *Kerrang!* and *Metal Hammer,* with one reviewer exclaiming: “If Metallica had grown

12 Ibid., 41-42.
14 The emphasis placed on meter—which is typically and mistakenly referred to as time signature—by progressive metal musicians and their fans is an issue I explore with more depth later in this dissertation.
15 Dream Theater, *Score DVD* Documentary.
16 Derek Simon, quoted in Wilson, “Words,” 47.
20 Ibid., 59.
21 Ibid., 61-62. Queensrÿche had just finished recording *Operation: Mindcrime* at Kajem prior to Dream Theater’s arrival.
22 Ibid., 69-71.
up on Styx or Kansas, this is what they might have sounded like. It’s a gathering of influences to create a genre.”

However, Petrucci noted that “[the album] didn’t sound that good” from a production standpoint, and furthermore, “the record label didn’t really do anything with it, so we never toured, and we didn’t have a lot of support.” As a result, *When Dream and Day Unite* flopped in the U.S. and only barely cracked the top 100 album chart in Japan.

Other problems followed quickly, including a threat of legal action from a Las Vegas band that had already taken the name Majesty, which resulted in an untimely name change immediately prior to the band’s first release on March 6, 1989. Eventually the group settled on Dream Theater, a name suggested to the band by Portnoy’s father, who lived near a cinema of the same name in Monterey, California. Further turmoil affected the band from within its own ranks, as Portnoy and Petrucci began to dislike Charlie Dominici’s on-stage presence, and the band decided he would have to be replaced. Dominici’s last performance as a member of Dream Theater was on November 14, 1989.


The band’s second period began in 1990 with a transitional year and a half in search of a new vocalist that included a handful of auditions with established vocalists (including John Arch of Fates Warning, Steven Michael Stone, John Hendricks, and Chris Cintron). The band members were ready to offer Cintron the full-time job when they received a demo tape from Canadian singer Kevin James LaBrie in late 1990, and opted to hire him instead. Shortly after agreeing to collaborate, LaBrie and Dream Theater recorded demos of the album that would become *Images and Words* in May of 1991, in order to persuade the record label Atco (headed at the time by former Gentle Giant member Derek Schulman) to sign them away from their

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23 Malcolm Dome, quoted in Wilson, “Words,” 70.
24 Ibid., 63. The poor sound quality of the album is probably due to the scant studio time allotted—less than a month—and small budget offered by Mechanic for the recording of the album, though it was produced by famed producer Terry Date (who produced albums for the bands Pantera, Soundgarden and White Zombie).
25 Dream Theater, *Score DVD* Documentary.
29 Ibid., 24.
30 Ibid., 24.
31 Ibid., 42. LaBrie would go by his middle name, James, after joining the band.
Successfully completing the label change, the band recorded *Images and Words*, beginning on October 14, 1991.\(^{32}\) Once again, there was turmoil surrounding the production and release of the material, as the band was surprised by the label’s decision to omit the song “A Change of Seasons” from the album upon entering the studio.\(^{34}\) Additionally, producer David Prater insisted that Portnoy’s snare and kick drums be “triggered” electronically,\(^{35}\) which resulted in a dated sound that was devoid of dynamics and timbral variation.\(^{36}\) Despite these issues, Dream Theater began touring to support the upcoming album, and was able to garner some needed visibility prior to its release with a gig supporting heavy metal giants Iron Maiden at New York’s Ritz Club on June 8, 1992.\(^{37}\)

*Images and Words* was released on July 7, 1992,\(^{38}\) and became band’s best-known album, selling more than 1.5 million copies and being certified Gold in both the U.S. and the Netherlands.\(^{39}\) It has been hailed by critics as a “genre classic”\(^{40}\) in heavy metal, as well as a signifier of the revival of progressive rock: “Some say that progressive rock died when bands like Yes and Genesis began catering to the mainstream. But with *Images and Words*, Dream Theater [proved] itself a true torchbearer.”\(^{41}\) Ironically, the success of the album was largely due to its first single, “Pull Me Under,” which was condensed from its original eight minutes via “a number of alarming edits” to suit radio airplay.\(^{42}\) “Pull Me Under” became a hit on the radio, and soon, the band shot a low-budget music video for the song which received heavy rotation on MTV, especially on the show *Headbanger’s Ball*.\(^{43}\) The singles “Take the Time” and “Another Day” followed, and Dream Theater embarked on a fourteen-month series of worldwide tours to

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\(^{33}\) Ibid., 113.

\(^{34}\) Ibid., 113.

\(^{35}\) This recording technique involves electronic sensors placed on drums which register attacks and convert them into electronic drum sounds, typically with consistent dynamics and timbres.

\(^{36}\) Ibid., 116.

\(^{37}\) Ibid., 116. This show was only LaBrie’s fourth as a member of Dream Theater.

\(^{38}\) Ibid., 126.


\(^{40}\) Wilson, “Words,” 44.


\(^{42}\) Wilson, “Words,” 129.

\(^{43}\) Ibid., 130-133. Robert Walser notes the importance of *Headbanger’s Ball*—which was the most-watched show on MTV in 1986—in the solidification of the heavy metal subculture in the 1980s. See Walser, *Running With The Devil: Power, Gender and Madness in Heavy Metal Music* (Hanover, NH: Wesleyan University Press, 1993), 12.
capitalize on its newfound success.\textsuperscript{44} By the end of the series of tours, the band had played in 194 shows in 17 countries, and had generated “fanaticism” throughout Japan which would continue to bolster record sales throughout its career.\textsuperscript{45}

However, success put pressure on the band to avoid the “sophomore slump” with its next release, which in this case would more accurately be described as the “junior slump,” as 1994’s \textit{Awake} was—despite the changes in personnel, management, and record label affiliation—the third Dream Theater album. Mike Portnoy remembers the anxiety the band felt during the production of \textit{Awake}: “It was the first time writing with a clock ticking, and a fan base waiting to hear [something]…so there was an incredible amount of pressure that we had never had before.”\textsuperscript{46} Adding to the anxiety was the untimely departure of Kevin Moore, who quit the band as the album released, citing “musical differences” with the rest of the group.\textsuperscript{47} Moore was replaced in a gig in Burbank, California by Jordan Rudess, who, though he would ultimately join the group, initially declined Dream Theater’s offer to become a full-time member and decided to stay with the Dixie Dregs.\textsuperscript{48} This left Dream Theater’s lineup in question for the second time in three albums. Further problems arose after the disappointing sales of the multifaceted—yet consistently heavy-sounding\textsuperscript{49}—album \textit{Awake}, which only managed to reach the thirty-second chart position in the U.S., as well as the sixty-fifth position in the U.K.\textsuperscript{50} This failure, exacerbated by the massive success of grunge bands in the U.S., prompted the record label to lose faith in the band, and the members began to question themselves for the first time. Portnoy admits to thinking that “maybe “Pull Me Under” was a fluke, maybe we [were] a one-hit wonder, maybe that was our fifteen minutes, you know?”\textsuperscript{51}

\textbf{The Addition of Derek Sherinian: The Third Period—1994-1999}

A more pressing issue was the still-vacated keyboard chair within the band, which needed to be filled before the coming “Waking Up the World” tour in support of \textit{Awake} in October of

\begin{flushright}
\textsuperscript{44} Neither of these singles performed as well as “Pull Me Under,” peaking at number twenty-nine and number twenty-two in the U.S., respectively (Billboard, “Artist Chart History-Dream Theater”; available from http://www.billboard.com/bbcom/retrieve_chart_history.do?model.chartFormatGroupName=Albums&model.vnuArtistId=14435&model.vnuAlbumId=942029; Internet; accessed 16 January 2009).
\textsuperscript{45} Mike Portnoy, quoted in Wilson, “Words,” 131.
\textsuperscript{46} Dream Theater, \textit{Score DVD} Documentary.
\textsuperscript{47} Wilson, “Words,” 149.
\textsuperscript{48} Ibid., 154.
\textsuperscript{49} I explore the contributors to the “heaviness” of Dream Theater’s sound in Chapter 3.
\textsuperscript{50} Ibid., 161.
\textsuperscript{51} Dream Theater, \textit{Score DVD} Documentary.
\end{flushright}
The audition process eventually yielded fellow Berklee product Derek Sherinian, whose previous gigs included working with high-profile bands such as Kiss and Alice Cooper. While Sherinian initially joined the band as a “hired gun” for the tour, he eventually became a full-time member in February of 1995. The first project involving Sherinian was the 1995 EP A Change of Seasons, a two-part release containing a studio-produced version of the 23-minute, 7-movement title track (which was initially omitted from Images and Words), as well as live covers of classic progressive rock songs taken from a gig at Ronnie Scott’s club in London earlier that year. The track “A Change of Seasons” was the longest composition the band had ever written at the time, and was “deliberately fashioned to compete—in terms of both length and complexity—with the likes of “Supper’s Ready” by Genesis, “Close to the Edge” by Yes, or even Rush’s “2112.” It was embraced by fans, which helped the album place fifty-eighth in the U.S. charts despite its odd format, and it would inspire several multi-movement “prog” epics in the coming years.

After a handful of tour dates in Japan and the U.S. to support A Change of Seasons, Dream Theater experienced what was perhaps the darkest time in its history—the period surrounding the release of Falling Into Infinity in 1997. The band members were under pressure by their new, major record label Elektra (which had appropriated East West Records and fell under the umbrella of the conglomerate Atlantic Records) to deliver a crossover hit, and for the first time, they gave in to the label’s demands—changing to a more mainstream image, writing shorter, catchier songs, agreeing to use a pop/rock producer (Kevin Shirley of Aerosmith fame), and even hiring an outside songwriter (Desmond Child, who wrote Aerosmith’s “Crazy” and Bon Jovi’s “Livin’ On a Prayer”). The “complete oppression” of these peripheral influences, as LaBrie recalls angrily, in addition to another change in management, frustrated the group to the point that it almost disbanded, as Portnoy tendered his resignation during the recording

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52 Wilson, “Words,” 164.
53 Ibid., 161-164.
54 Ibid., 171.
55 The last track on the EP, “Big Medley,” covers songs from prog bands Queen, Pink Floyd, Journey, Kansas, the Dixie Dregs, and Genesis.
56 Ibid., 174.
57 Billboard, “Artist Chart History-Dream Theater.”
58 Wilson, “Words,” 185.
59 Ibid., 193-198.
60 Ibid., 216.
process before ultimately withdrawing it while on tour. Additionally, despite the attempts by
the label and band to create a more streamlined, accessible album, *Falling Into Infinity*
performed no better than Dream Theater’s previous efforts, peaking at number fifty-two in the
U.S. chart and failing to crack the Top 75 in the U.K.. Furthermore, the underground, prog
rock cult following the band had established with its previous efforts reacted with hostility
against what it perceived to be a blatant attempt to “sell out.”

While the *Falling Into Infinity* years were certainly frustrating, they were probably
necessary for Dream Theater to take its next step musically. All of the negativity surrounding
the album resulted in the band members venturing outside of Dream Theater in search of more
artistically-fulfilling side projects. One of these was the instrumental group Liquid Tension
Experiment, which teamed Petrucci and Portnoy up with the legendary King Crimson bassist
Tony Levin and the original choice to replace keyboardist Kevin Moore, Jordan Rudess. Wilson
notes that “the contents of Rudess’ record collection largely overlapped with those of [Portnoy
and Petrucci]—everything from metal, prog and jazz-rock—though [his] knowledge of classical
music also greatly affected a unique style of playing.” Teaming up with Rudess proved to be
very musically inspiring for Portnoy and Petrucci, and the camaraderie was so strong that they
decided to offer him the keyboard position in Dream Theater again—despite the fact that
Sherinian was still a member of the band. Citing Sherinian’s fixation with the “rock star image,”
and noting that his single lifestyle was grating on the rest of the band (who were all married),
they fired Sherinian in January of 1999. However, Rudess’s willingness to join the band full-
time was the real impetus behind Sherinian’s firing, and the band members looked forward to the
fresh environment that would be created for Dream Theater to re-establish its identity.

**Jordan Rudess Joins Dream Theater: The Fourth Period—1999-Present**

Another event that provided a fresh working environment for the band—in addition to its
new keyboardist—was a fallout with Elektra following *Falling into Infinity*, which ended with
the label agreeing to allow the band full control of its compositions and recordings. Portnoy

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61 Dream Theater, *Score DVD* Documentary.  
63 Ibid., 205.  
64 “LTE,” as the band became known, released three all-instrumental albums: *Liquid Tension Experiment* (1998), 2
(1999), and *Spontaneous Combustion* (2007). John Myung also released an album with the progressive rock
collaboration Platypus in 1998, and James LaBrie fronted a group named Mullmuzzler in 1999.  
65 Wilson, “Images,” 76.  
recalls that Dream Theater became “free of the powers that be, [and] completely independent for the first time” in writing *Scenes From A Memory*, which he calls “the resurrection of Dream Theater.”

The full title of this elaborate concept album, which was released on October 26, 1999, is *Metropolis – Part II: Scenes From A Memory*—a title referring back to the track “Metropolis – Part I: The Miracle and the Sleeper” from *Images and Words*. The convoluted, fantastical love triangle story of *Scenes*—which involves murder and reincarnation—is sung with several distinct vocal articulations by LaBrie in order to evoke the different characters in the plot. Also, musical themes from “Metropolis – Part I” are revisited and transformed throughout the album. All of these elements create a grandiose piece of music that can be read as a reaction against the commercialized album *Falling Into Infinity*, as well as a deliberate attempt to recreate the classic concept albums of the progressive rock era, such as Genesis’s *The Lamb Lies Down On Broadway*, The Who’s *Tommy*, and, most famously, Pink Floyd’s *The Wall*. In fact, Portnoy brought each of these albums to the recording studio for the *Scenes From A Memory* sessions “to serve as reminders of the standard they were endeavoring to surpass.”

The reception of the album was generally positive—indeed Metal Edge’s Paul Gargano claimed *Scenes* to be Dream Theater’s “crowning achievement”—though its sales figures (slightly more than half of a million copies sold worldwide) were meager compared to those of the “standard” the band desired to exceed.

After touring in support of *Scenes From A Memory* for much of 1999 and 2000, Dream Theater re-entered the studio to craft its next album, *Six Degrees of Inner Turbulence*, which released on January 29, 2002. Portnoy notes that “we had Pantera running through our blood…when we entered the studio” for the *Six Degrees* sessions, as he and Petrucci had just

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67 Dream Theater, *Score DVD* Documentary.
69 I use the terms “theme” and “riff” interchangeably throughout this dissertation, as I consider them to be synonymous—both terms are typically used to denote a distinctive musical idea larger than a motive that may or may not be the length of a phrase. Mark Spicer accurately notes that “riffs” are “frequently sounded over and over again in the manner of an ostinato (Mark Spicer, *British Pop-Rock Music in the Post-Beatles Era: Three Analytical Studies* (Ph.D. dissertation, Yale University, 2002), 10);” however, he observes that this is not always the case, and as such, I find no reason to distinguish between the two terms.
70 Wilson, “Words,” 237. I discuss the “concept album” as well as Dream Theater’s “inspiration corner” of the studio with more depth in Chapter 3.
71 Paul Gargano, quoted in Ibid., 249.
73 Wilson, “Words,” 271.
attended one of the band’s shows the previous weekend. Consequently, the double-album begins with a very Pantera-like song, “The Glass Prison,” which, along with several clear references to other bands on the album (notably to Tool in “The Great Debate” and to Peter Gabriel in “Solitary Shell”), resulted in mixed reactions from fans and critics. For example, critic Robert Taylor complains that “blatant thievery” of these bands can be heard throughout the album. Further fueling such criticism was Dream Theater’s odd new practice of covering entire albums from other bands during its shows. Wilson notes that around the time of the Six Degrees tour, the band members began a “new tradition, hailing their influences by performing Iron Maiden’s The Number of the Beast and Master of Puppets by Metallica in their entirety.” Portnoy explains that the motivation behind these shows was simply to “pay tribute to some of the bands and albums that shaped us,” though the result was a stigma of derivativeness that the band carries with it today in the eyes of some critics and listeners. Another controversial aspect of Six Degrees was the double-album’s second disc, which comprises a single, eight-movement composition—complete with an overture—that lasts over forty-two minutes and can be experienced as a concept album in its own right, as each movement deals with the theme of madness. While some fans appreciated the stylistic nods to ‘70s-era progressive rock throughout this title track (including heavy doses of Rudess’s keyboard), others became weary of what they perceived to be “bloated” or “pompous” composing. Additionally, the stark differences in style between the heavy metal-inspired first disc and the prog rock-inspired second disc led to charges of inconsistency from fans. Despite these negative reactions, however, Six Degrees did manage to garner some positive press—especially a story in the mainstream magazine Entertainment Weekly—and peaked inside the top fifty albums on the Billboard chart, while also being a top album in Italy and Japan.

74 Ibid., 263.
76 Wilson, “Images,” 86. Later in 2006, Dream Theater continued this trend by covering Deep Purple’s Made in Japan and Pink Floyd’s Dark Side of the Moon.
77 Wilson, “Words,” 275.
78 I discuss the history of the lyrical theme of madness in progressive rock in Chapter 3.
79 Ibid., 270.
80 Billboard, “Artist Chart History-Dream Theater.”
81 Six Degrees peaked at number five in Italy (Italiancharts.com, “searchable database”; available from http://italiancharts.com/search.asp?cat=a&search=dream+theater; Internet; accessed 16 January 2009) and at number fifteen in Japan (Oricon Style, “Dream Theater”).
Dream Theater’s immersion in classic metal albums on the following *Six Degrees* tour directly contributed to the sound of the band’s next studio release, 2003’s *Train of Thought*, as Portnoy notes the collective thought entering the studio was: “we want a classic metal album.” *Train of Thought* is widely considered to be the heaviest-sounding album Dream Theater has created to date, with songs like “Honor Thy Father,” “In the Name of God” and “As I Am” exhibiting several stylistic elements of heavy metal, including not only distorted power chords, but also growled vocals and “blast beats.” Wilson adds that “the album’s cover was also strikingly shadowy in an attempt to match the bleak musical feel.” Perhaps due to its polarizing sound, *Train of Thought* performed slightly worse than *Six Degrees* on the international music charts; however, the album ironically received near-unanimous praise from critics, including Michael Deeds of *The Washington Post*, who characterized *Train of Thought* as “the classic metal album that no classic metal band could ever pull off.”

Dream Theater had the opportunity to record its follow-up to *Train of Thought* in Hit Factory Studios, the famed location that had served as the origin of multi-platinum albums from artists Michael Jackson, Bruce Springsteen, Madonna, U2, and John Lennon. Wilson notes that “once again, the band [members] had already decided on a concrete direction before they reconvened, and having previously recorded what they deemed to be a classic concept album in *Scenes From A Memory*, and a definitive metal album in *Train of Thought*, [they] wanted to return to their roots” to create a more balanced offering in what would become 2005’s *Octavarium*. Additionally, the band members decided to challenge themselves to write a few shorter songs on the new album, inspired by U2 and Coldplay. The results, “I Walk Beside You,” “These Walls,” and “The Answer Lies Within,” are decidedly more radio-friendly than most of the songs in the Dream Theater catalog; however, these songs are contrasted sharply by some of the most “progressive” tracks the band has ever released; both “Sacrificed Sons” and the

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82 *Train of Thought* was released on November 11, 2003 (Wilson, “Words,” 294).
83 Ibid., 285.
84 I discuss these salient stylistic elements of heavy metal in more detail in Chapter 3.
85 Ibid., 293. I discuss the heavy metal theme of darkness in Chapter 3.
87 Dream Theater actually has the honor of being the last band to record at Hit Factory Studios prior to their closing in 2005 (Ibid., 303).
88 Ibid., 303. *Octavarium* was released on June 7, 2005 (Ibid., 312).
89 Ibid., 304.
multi-movement “Octavarium” exceed ten minutes in length and even feature a sixteen-piece orchestra. The album features several other progressive elements as well, including prog-inspired cover art (which was done by Hugh Syme, the artist responsible for the art on Rush’s albums *Moving Pictures* and *Hemispheres*) and especially a systematic key scheme. In this scheme, each track is written in a minor key whose root ascends by scale step through the entire F Lydian diatonic collection (i.e. the first track is in F minor, the second in G minor, the third in A minor, etc.); additionally, the band inserted short interludes in keys with chromatic roots where necessary, such that the album’s stepwise pattern completes the aggregate in order.

*Octavarium* marked the end of Dream Theater’s fourteen-year relationship with Atlantic Records (the conglomerate that oversaw Atco, East West, and Elektra), as the band soon signed a contract with the smaller, more heavy metal-focused label Roadrunner Records. However, despite Atlantic’s resultant refusal to substantially promote the album, *Octavarium* performed better than any Dream Theater album since *Awake*, peaking at number thirty-six on the Billboard chart\(^91\) and making the top ten in Italy, Japan, and the Netherlands.\(^92\) While the band intentionally deviated from the pop/rock approach of *Octavarium* on its next release, *Systematic Chaos*,\(^93\) the band still regards the album as a high point in its career. “To me,” says Petrucci, “it’s our best. To me, it’s such a good representation of our band.”\(^94\)

Dream Theater toured in support of *Octavarium*, culminating in a show at Radio City Music Hall in New York on April 1, 2006 that spawned its platinum award-winning live DVD album *Score*, which was eventually shown on *VH1-Classic*.\(^95\) Within a month of the release of *Score*, Dream Theater re-entered the studio to begin recording the heavy-sounding *Systematic Chaos*,\(^96\) whose direction was admittedly influenced by the band’s new relationship with

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\(^{90}\) Jordan Rudess admits that the band was intentionally “looking for that ultimate Yes or Genesis influence” for the song “Octavarium” (Ibid., 308).

\(^{91}\) Billboard, “Artist Chart History-Dream Theater.”

\(^{92}\) The album peaked at number two in Italy (Italiancharts.com, “searchable database”), at number ten in Japan (Oricon Style, “Dream Theater”), and at number nine in the Netherlands (Hung Medien, “Dream Theater in Dutch Charts”; available from http://www.dutchcharts.nl/showinterpret.asp?interpret=Dream+Theater; Internet; accessed 11 February 2009).

\(^{93}\) In an interview with the online fanzine Imhotep, Portnoy explains the direction of *Systematic Chaos*: “I knew I wanted the album to be darker and more aggressive and powerful. Not really get very pop at all…this album, it has a lot of different styles…mellow songs and progressive songs, but even those songs are still kinda dark and powerful (Imhotep, “Dream Theater- A New Era Begins”; available from http://www.imhotep.no/?did=9073869; Internet; accessed 11 February 2009).”

\(^{94}\) Dream Theater, *Score DVD* Documentary.

\(^{95}\) Wilson, “Words,” 324.

\(^{96}\) *Systematic Chaos* released on June 4, 2007 (Ibid., 329).
Roadrunner. Rudess explains: “There was an awareness that [Roadrunner] was a cool rock label, and that we [had] to make sure that we…delivered something to the heavier side of Dream Theater.”\textsuperscript{97} The result was a more stylistically-varied album than the consistently-heavy \textit{Train of Thought}, but one that frequently made use of heavy metal stylistic markers—including growled vocals on the Metallica-influenced “Constant Motion” and even screamed vocals on “The Dark Eternal Night.” One noteworthy progressive rock element introduced in \textit{Systematic Chaos} is the use of fantastical lyrics depicting characters such as vampires and epic battles of good and evil, an element used in the single “Forsaken” as well as in the multi-movement suite “In the Presence of Enemies.” The latter track was broken into two large sections on \textit{Systematic Chaos}, with the first two movements presented at the beginning of the album and the last four movements continuing the story at the album’s close. Petrucci attributes the practice of interrupting a multi-movement suite to Rush, whose album \textit{Hemispheres} continues the story begun on \textit{A Farewell to Kings}, and proclaims that “the idea of having musical bookends to an album—a “to be continued” story line—is very much in keeping with our identity as a progressive band.”\textsuperscript{98}

\textit{Systematic Chaos} proved to be the best-performing Dream Theater album to date on the international album charts, entering at the nineteenth position in the U.S. chart, as well as making the top ten in Italy, Finland, Japan, Sweden, and Germany.\textsuperscript{99} Additionally, the album was the first Dream Theater release to crack the top twenty-five in the U.K. chart.\textsuperscript{100} Furthermore, the band released a music video for both of the album’s singles (“Constant Motion” and “Forsaken”), and each was picked as a finalist for “Best Metal Video” on \textit{MTV’s Headbanger’s Ball} television program.\textsuperscript{101}

\textsuperscript{97} Ibid., 338. 
\textsuperscript{98} Ibid., 330. 
\textsuperscript{99} This chart information was released by a Roadrunner Records affiliate, Blabbermouth.net (Blabbermouth.net, “News Archive”; available from http://www.roadrunnerrecords.com/blabbermouth.net/news.aspx?mode=Article&newsitemID=75350; Internet; accessed 11 February 2009). However, their claims are substantiated by Billboard, the U.K. database everyHit.com, the Oricon Style chart page, and other online sources. 
\textsuperscript{100} Ibid. 
\textsuperscript{101} Dreamtheater.net, “Dream Theater News Archive”; available from http://dreamtheater.net/news_dreamtheater.php; Internet; accessed 11 February 2009. The video for “Constant Motion” was a finalist in the 2007 awards competition, while the video for “Forsaken” garnered a nomination the following year.
Dream Theater Select Discography\textsuperscript{102} with Album Sales Chart Positions in the U.S.,\textsuperscript{103} U.K.,\textsuperscript{104} and Japan\textsuperscript{105}

Figure 1.1 provides a discography separated into the four major periods of Dream Theater’s studio-recorded career. I have chosen to limit the scope of this project to Dream Theater’s full-length studio albums, though I additionally include the title track of the 1995 EP A Change of Seasons, as it was recorded in a studio and was intended to conclude 1992’s Images and Words. Dream Theater has also released a compilation album,\textsuperscript{106} as well as several live albums, authorized bootlegs, singles, and video albums on VHS and DVD formats.

<table>
<thead>
<tr>
<th>Period</th>
<th>Album Title (Release Year)</th>
<th>U.S. Peak Chart Position</th>
<th>U.K. Peak Chart Position</th>
<th>Japan Peak Chart Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When Dream and Day Unite (1989)</td>
<td>-</td>
<td>-</td>
<td>98</td>
</tr>
<tr>
<td>2</td>
<td>Images and Words (1992)</td>
<td>60</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Awake (1994)</td>
<td>32</td>
<td>65</td>
<td>7</td>
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<td>3</td>
<td>A Change of Seasons (1995)</td>
<td>58</td>
<td>88</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Falling Into Infinity (1997)</td>
<td>52</td>
<td>163</td>
<td>16</td>
</tr>
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<td>4</td>
<td>Scenes From A Memory (1999)</td>
<td>73</td>
<td>131</td>
<td>19</td>
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<td></td>
<td>Six Degrees of Inner Turbulence (2002)</td>
<td>46</td>
<td>-</td>
<td>15</td>
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<tr>
<td></td>
<td>Train of Thought (2003)</td>
<td>53</td>
<td>146</td>
<td>12</td>
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<tr>
<td></td>
<td>Octavarium (2005)</td>
<td>36</td>
<td>72</td>
<td>10</td>
</tr>
</tbody>
</table>

\textbf{Figure 1.1} A discography of Dream Theater’s studio albums, divided by career periods.

\textsuperscript{102} For a full discography, see Prog Archives, “Dream Theater”; available from http://www.progarchives.com/artist.asp?id=378; Internet; accessed 11 February 2009.
\textsuperscript{103} Billboard, “Artist Chart History-Dream Theater.”
\textsuperscript{104} Tobias Zywietz, “Chart Log UK”; available from http://www.zobbel.de/cluk/CLUK_D.HTM; Internet; accessed 17 February 2009. This database includes information from both ChartsPlus and MusicWeek, two well-known British sales charts.
\textsuperscript{105} Oricon Style, “Dream Theater.”
\textsuperscript{106} This 2008 release from Rhino Records is entitled Greatest Hit (…and 21 Other Pretty Cool Songs), poking fun at the fact that the band has only written one successful crossover single to date, “Pull Me Under” from Images and Words.
Conclusion

Despite numerous changes in management, in record label affiliation, and especially in band personnel, Dream Theater has intentionally strived for—and managed to maintain—a consistent, signature sound. Portnoy attests to the importance of stylistic consistency to the band members: “We try to have our sound and our style that we never stray from—we want to stay loyal and faithful to that.”107 Petrucci notes that the result of this aesthetic is that “when we play live and we play any song from any album…they always sound like they go together.”108 Specific albums have tended to highlight individual aspects of that sound more than others (e.g. the heavy metal focus of *Train of Thought*); however, even these albums have exhibited a wide stylistic range that has more or less encompassed the entirety of that sound (for instance, *Train of Thought* includes a somber, slow-tempo cello solo on “Vacant,” as well as other progressive rock-inspired allusions to concert music). Figure 1.2109 analyzes the relative degrees of stylistic hybridization between Dream Theater’s studio albums, concentrating on the two major styles influencing the band’s sound—progressive rock and heavy metal.110 While the shapes in the diagram possess defined borders and are presented in isolation, I do not intend to express a belief in stylistic concreteness or homogeneity.111 I should also note that the irregularity of the distances between albums on the horizontal axis is deliberate, as I intend to show unequal stylistic relationships between albums. The lack of equal gradations on the horizontal axis with which one might measure these distances is also intentional, as it is impossible to formulate units of style. I do, however, relate Dream Theater’s albums in Figure 1.2 according to a set of stylistic criteria. I provide a more nuanced analysis of the stylistic markers of progressive rock and heavy metal that inform these criteria in Chapter 3, along with definitions and examples of

108 Dream Theater, *Score DVD* Documentary.
110 Other styles do play a significant role in the band’s sound, such as traditional pop/rock (especially on *Falling Into Infinity* and *Octavarium*). However, I argue in Chapter 3 that the most salient features of Dream Theater’s music can be mapped onto the parent genres of progressive rock and heavy metal, and that forays into other styles are generally section- or opus-level allusions.
111 John S. Cotner delves into the problem of stylistic discreteness in progressive rock in his dissertation, concluding that “progressive rock…cannot be definitively understood as a genre (Cotner, *Archetypes of Progressiveness in Rock*, 288).” The same problem exists with heavy metal, whose history involved a period of fragmentation into disparate subgenres (see Walser, *Running With The Devil*, 13).
what I consider to be the band’s most salient musical traits. But first, it is important to define the analytical method and requisite music-theoretical concepts for this analytical project in Chapter 2.

Figure 1.2 A stylistic analysis of Dream Theater’s studio albums (1989-2007).
CHAPTER 2
REVIEW OF LITERATURE AND ANALYTICAL METHODS

In order to clearly define my approach to the analysis of Dream Theater’s music and the experiences it creates, it is first necessary to address relevant sources pertaining to the band, its musical style, and the analysis of rhythm and meter. This chapter is presented in three large sections. The first section begins with a review of both scholarly and non-scholarly sources pertaining to Dream Theater, the progressive metal subgenre, and its two parent styles, progressive rock and heavy metal. In the second section, I outline some of the major scholarly contributions relevant to my analytical project, focusing on those regarding the analysis of rhythm and meter. Within this large section, I first contextualize twentieth-century reconsiderations of meter by discussing some of the landmark sources on tonal meter. Second, I summarize some of the major trends involving the analysis of rhythm and meter in twentieth-century concert music, which have redefined meter from an experiential perspective and greatly inform my analyses in Chapters 4 and 5. Third, I address recent scholarly sources treating the analysis of popular music that have adapted these earlier approaches to the analysis of rhythm and meter. I conclude this chapter with the third large section, in which I delineate my approach to the analysis of Dream Theater’s music, describing my appropriations from existing models of metric analysis as well as defining my own original methodologies.

Sources of Historical and Stylistic Information on Dream Theater and Progressive Metal

Non-Scholarly Sources

Dream Theater’s drummer Mike Portnoy is a meticulous archivist, and has preserved a significant number of primary sources on the band’s music that were reviewed for this project. Chief among these are the documentaries included on the video albums Live at Budokan (2004) and Score (2006), as well as the DVD from the special edition of Systematic Chaos entitled Chaos in Progress: The Making of Systematic Chaos (2007). Each of these sources provides band interviews, live concert footage, and rehearsal footage offering insights into the group’s compositional process. Additionally, these videos capture the band members openly describing
their music in ways that are often obscured by edited print media. Other important primary sources that provide information on the band’s history, compositional process, and musical influences are interviews found in print and online media, which have been compiled by the band’s official website since 1997.\(^1\) An invaluable secondary source of information on Dream Theater’s history is Rich Wilson’s extensive two-volume biography *Lifting Shadows: The Authorized Biography of Dream Theater*. The first volume, “Images,” includes a photographic history of the band from its inception to the release of *Systematic Chaos* in 2007, as well as tour information. Many of the photographs in “Images” come from rehearsal and recording studios, and offer insights into the band’s working environment. The second volume, “Words,” provides a detailed written history replete with band member interviews.\(^2\) While “Words” often borders on Dream Theater advocacy, it is the most comprehensive history of the band available, and the access granted to Wilson yields a staggering number of insightful quotations from band members. Another secondary source of historical and stylistic information is the fanzine Prog Archives,\(^3\) which defines and describes several progressive rock subgenres, including progressive metal.\(^4\) However, the quality of information varies wildly among the webpage’s numerous articles and profiles. The website All Music Guide is also beneficial, containing a history of Dream Theater, album reviews, a brief history of the progressive metal style, and a subgenre “highlights” section, which positions Dream Theater at the head of the “Top Artists” and “Top Albums” lists.\(^5\) The site’s definition of progressive metal (a blending of “the attack, volume, and aggression of metal with the grandiose, pseudo-classical ambitions of prog-rock”) is particularly useful, as it speaks to the overall “progressive” aesthetic of the style despite its timbral influences from heavy metal. Important sales information regarding Dream Theater’s

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4. While progressive metal is typically considered a subgenre of heavy metal, Lucas Biela labels the subgenre “metal prog” to clarify that the style is more heavily influenced by progressive rock than by heavy metal (Biela, “The Development of Progressive Rock Music”; available from http://www.progarchives.com/Progressive-rock.asp#19; Internet; accessed 11 November 2008). I address this argument in more detail in Chapter 3.
albums is provided by the U.S. Billboard chart,\(^6\) as well as the Recording Industry Association of America’s online database.\(^7\)

**Scholarly Sources**

The only significant scholarly contribution to the definition and analysis of progressive metal is Jonathan Pieslak’s 2007 article “Re-casting Metal.”\(^8\) This article does much to delimit the stylistic boundaries of the subgenre, noting the importance placed by progressive metal bands and their fans on the rhythmic and metrical complexity of the music and the requisite technical facility it involves:

> While maintaining the loud, distorted guitar timbre associated with metal music in general, progressive/math metal emphasizes a sophisticated musical structure, particularly with regard to rhythm and meter, and requires skilled technical performances by the entire ensemble. The tendency to focus on rhythmic and metric complexity is often the determining factor for qualification in the progressive/math subgenre.\(^9\)

Pieslak is astute in pointing out the similarity between the emphasis on meter in “math rock” and progressive rock with his dual label progressive/math metal. Theo Cateforis claims that the primary feature of math rock is “the extensive use of asymmetrical (or “odd”) time signatures and shifting mixed meters,” an element emphasized by scholars as being a noteworthy feature of progressive rock.\(^10\) In a footnote, Pieslak notes that he inserts the word “math” into his description of the subgenre only in order to describe the unique music of the Swedish band Meshuggah, which blends influences of heavy metal and math rock, and is not influenced by “progressive rock bands such as King Crimson, Pink Floyd or Rush.”\(^11\) He thus admits that a

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\(^6\) Billboard, “Artist Chart History-Dream Theater.”

\(^7\) Recording Industry Association of America, “Searchable Database.”


\(^9\) Ibid., 244.

\(^10\) Theo Cateforis, “How Alternative Turned Progressive: The Strange Case of Math Rock,” in *Progressive Rock Reconsidered*, ed. Kevin Holm-Hudson (New York: Routledge, 2002), 244. The synonymous use of “time signature” and “meter” in both scholarly and non-scholarly sources of progressive rock is problematic, and is an issue that has been raised in another popular music context by Mark J. Butler. Butler notes that in most pop music situations, where “notation is rarely associated with musical performance or appreciation, the use of notational terminology to describe an aspect of musical experience is striking. While undoubtedly a matter of which music-theoretical terminology is most familiar to non-theorists, the tendency also reveals the continuing strength of the association between music theory and notation (Mark J. Butler, *Unlocking the Groove: Rhythm, Meter, and Musical Design in Electronic Dance Music* (Bloomington: Indiana University Press, 2006), 113).”

\(^11\) Pieslak, “Re-casting Metal,” 243-244.
preference might be given to the label “math metal” for describing Meshuggah’s music, though he claims that such distinctions are peripheral to his purposes in the article. I believe that since Dream Theater’s music is clearly influenced by progressive rock bands—including the very bands mentioned by Pieslak—it serves as a better example of progressive metal than that of Meshuggah. Durrell S. Bowman’s dissertation *Permanent Change* could also be considered a source that deals with the topic of progressive metal—Bowman even makes note of Dream Theater, calling the group a “fairly well-known” and “progressive-oriented” metal band—however, his remarks are made in passing and only address the style as it relates to Rush’s music.  

Kevin Holm-Hudson defines one of the two primary influences of progressive metal—progressive rock—in his book *Progressive Rock Reconsidered*, and additionally outlines its origins and early influences in the 1960s. This book also includes articles from numerous authors which address a wide variety of topics related to progressive rock, such as its later stylistic outgrowths (including math rock and progressive hard rock). The authors of *Progressive Rock Reconsidered* range from sociologists to musicologists to music theorists, and as such the analytical depth varies greatly from author to author. However, Holm-Hudson’s articles are quite strong, and his introduction chapter is concise yet full of historical and stylistic information on progressive rock. Mark Prendergast also provides a description of progressive rock in his book *The Ambient Century*, emphasizing its non-standard rock instrumentation and focus on musical complexity. While Prendergast’s writing clearly demonstrates his disdain for the genre, his detailed discussion of progressive rock instrumentation is very helpful. Chris Atton characterizes progressive rock as well, analyzing prog fanzines in “Living in the Past?” which engage aspects of dress, instrumentation, song length, and meter in the genre.

An especially important trait of progressive rock is intertextuality, an element that is consistently present in the music of Dream Theater. The most thorough source on

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12 Mike Portnoy professes his allegiance to these bands in interviews frequently, and he also has album artwork from both King Crimson’s *Larks’ Tongues in Aspic* and Pink Floyd’s *The Wall* tattooed on his body.
17 Perhaps the most important source on intertextuality in music is Michael Klein’s *Intertextuality in Western Art Music* (Bloomington: Indiana University Press, 2005). In Chapters 3-5, I analyze [footnote continued on next page]
intertextuality in prog is Mark Spicer’s dissertation *British Pop-Rock in the Post-Beatles Era*, which analyzes Genesis’s music and additionally reviews much of the scholarly literature on the topic.\(^\text{18}\) Intertextuality has also been discussed in the scholarly literature on progressive rock by John Covach,\(^\text{19}\) Kevin Holm-Hudson,\(^\text{20}\) John J. Sheinbaum,\(^\text{21}\) John S. Cotner,\(^\text{22}\) and Deena Weinstein.\(^\text{23}\) All of these authors agree that the frequency with which progressive rock musicians reference other styles of music separates them from musicians in other rock styles, though each treats the importance of prog’s intertextual references to concert or “art” music differently—Covach emphasizes these references to the highest degree. I address their individual findings with more detail in Chapter 3, in my discussion of the main prog rock elements in Dream Theater’s music.

A significant source of information on the other parent style of progressive metal—heavy metal—is Robert Walser’s ethnomusicological book *Running With The Devil*, which includes a history of the genre, a detailed discussion of its prominent stylistic markers, and chapters describing its place in culture and politics.\(^\text{24}\) Walser does not analyze complete heavy metal compositions from a music-theoretical standpoint in his book, though his discussion of the primary traits of heavy metal’s sound is very beneficial, as are most of his short analytical excerpts. Pieslak also discusses heavy metal’s origins and summarizes its most salient stylistic elements in “Re-casting Metal.”\(^\text{25}\) While his work is more recent, he largely echoes Walser’s claims regarding the genre’s most important characteristics. Another useful source on heavy metal is “‘Heaviness’ in the Perception of Heavy Metal Guitar Timbres” by Harris M. Berger

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[footnote continued from previous page] what Klein calls “esthesic intertextuality” in Dream Theater’s music—that is, treating my own associations to other musical texts—as well as historically-linear examples of quotation and influence (“poietic intertextuality”). Catherine Losada’s article “The Process of Modulation in the Musical Collage” (*Music Analysis* 27/2-3 (forthcoming)) is another useful source regarding intertextuality. The typology of intertextuality she presents in the article helps me differentiate between techniques of musical reference in the band’s songs. She separates intertextual technique into nine different types, including structural reference, stylistic allusion, quotation, collage and recomposition; each of these types is prominently featured in Dream Theater’s music.

\(^\text{18}\) Spicer, *British Pop-Rock in the Post-Beatles Era*.
\(^\text{22}\) John S. Cotner, “Pink Floyd’s ‘Careful With That Axe, Eugene’: Toward a Theory of Textural Rhythm in Early Progressive Rock,” in Ibid., 86.
\(^\text{23}\) Deena Weinstein, “Progressive Rock as Text: The Lyrics of Roger Waters,” in Ibid., 91.
\(^\text{24}\) Walser, *Running With The Devil*.
\(^\text{25}\) Pieslak, “Re-casting Metal.”
and Cornelia Fales, which deals specifically with the nature of the genre’s characteristic “heavy” timbres. This study confirms many of Walser’s earlier speculations regarding timbre in heavy metal, and additionally involves music from a progressive metal band, Winter’s Bane.

Scholarly Literature on the Theory and Analysis of Rhythm and Meter

Theories of Tonal Meter

Before moving to recent theories of meter for the analysis of twentieth-century concert music that are applicable to the analysis of Dream Theater’s music, it is important to consider foundational sources on tonal meter that have influenced such contributions. The most general aspects of tonal meter are described in music theory textbooks for undergraduates, such as Jane Piper Clendinning and Elizabeth West Marvin’s The Musician’s Guide to Theory and Analysis, which defines meter as “the grouping and divisions of beats in regular, recurring patterns.” This definition’s emphasis on periodicity is echoed by most twentieth-century scholars of tonal meter. These scholars generally dichotomize the domains of meter and rhythm, considering meter to be a mechanistic measurement device that coexists with much freer rhythmic durations and groupings. One such theorist is Victor Zuckerkandl, who observes “the freedom of rhythm under the law of meter.” The more recent work by Fred Lerdahl and Ray Jackendoff—which not only separates the concept of meter from rhythm but additionally from rhythmic grouping structure—also describes meter as a relatively static phenomenon, such that “meter provides the means of…measurement for music.” Prescriptive theories of tonal meter involve other requirements besides accent-pattern recurrence, such as those outlined by Lerdahl and Jackendoff’s “Metrical Well-Formedness Rules” and “Metrical Preference Rules.” Chief among these is the requirement that beats and subdivisions be isochronous (of equal length).

30 Ibid., 69-104.
31 “Isochronous” literally means having equal duration; however, it is now generally accepted that beats are idealized, durationless time-points (Lerdahl and Jackendoff, A Generative Theory of Tonal Music, 18). Thus, recent theorists of tonal meter typically refer to “isochronous meter” as possessing [footnote continued on next page]
such that the listener is readily able to infer a hierarchy of beats. Such that the listener is readily able to infer a hierarchy of beats. Carl Schachter implicitly agrees with this requirement in his article “Aspects of Meter,” demoting all non-isochronous, non-recurring, non-hierarchical groupings of surface-level accents to the group of “quasi-metrical effects.”

While some theorists, like William Rothstein, require all levels of meter to behave in the same way, many theories of tonal meter tend to relax the surface-level requirements for regularity on hypermetrical levels in order to account for irregular, yet very common, metrical phenomena in the tonal music of the Western masters. Lerdahl and Jackendoff are among these theorists, as they eschew distinctions of strong and weak beats in hypermeasures, defining hypermeter loosely as “a level above the notated measure.” They also argue that irregularities on hypermetrical levels can be considered transformations of regular background structures that are typically the result of “metrical deletion” due to grouping “overlap” or “elision,” which requires metrical reinterpretation on behalf of the listener. Schachter echoes these ideas: “Of course, when [hyper]metrical groups are altered, equal time spans often cease to appear literally on the musical surface—the listener must arrive at the idea of equal spans—and consequently of an underlying metrical structure—through a process of inference.”

While the transformational approach to hypermeter has become commonplace in the discipline, metrical irregularities on the surface-level are often disregarded as ametric or even anti-metric by theories of tonal meter. Dream Theater’s music often exhibits surface-level metrical irregularity, however (indeed, it is a hallmark of the progressive metal subgenre); thus, theories of tonal meter are less relevant to its analysis than those which address complex rhythmic phenomena with more detail.

[footnote continued from previous page] beats that are equally spaced, and to “non-isochronous meter” (or NI-meter) as possessing beats that are unequally spaced. I use these terms instead of the related terms “symmetrical meter” and “asymmetrical meter” throughout this dissertation.

32 Ibid., 18-21.
35 The term “hypermeter” was first used by E.T. Cone in Musical Form and Musical Performance (New York: W.W. Norton and Company, 1968).
36 Lerdahl and Jackendoff, A Generative Theory of Tonal Music, 20, italics mine.
37 Ibid., 55-104.
38 Schachter, “Aspects of Meter,” 102. Many of Schachter’s ideas on hypermetrical transformation are derived from Schenker’s writings.
Temporal experiences of the rhythmically- and metrically-complex music of Dream Theater often parallel those of the twentieth-century concert music of Stravinsky, Bartók, and later minimalist composers, including Reich, Glass, and Andriessen. As such, it is helpful to address sources pertaining to the analysis of twentieth-century rhythm that have reconsidered the nature of meter to suit more complex contexts. Jonathan Kramer’s 1988 book *The Time of Music* is a foundational source toward this end. Kramer separates temporal experience into categories, including linear time, non-linear time, gestural time, multiply-directed time, moment time, and vertical time. Analyzing these different types of experiences and the musical elements that create them—as Kramer does in his analysis of the multiply-directed time and moment time in Stravinsky’s symphonies—can lead to a fuller understanding of a piece of music and its perceived meaning.

Twentieth-century concert music frequently involves highly irregular rhythmic and metric phenomena that diverge from their notation in scores. Phenomenological theories of meter, like that of Kramer, have proven especially useful for the analysis of rhythm and accent in these instances, and aim to describe what Joel Lester calls “heard meter.” More recent contributions to the scholarly literature by Christopher Hasty, Justin London, and Gretchen Horlacher involve metric perception as well, and can be useful in creating musical segmentations of Dream Theater’s non-notated music. Hasty’s 1997 book *Meter as Rhythm*—the best-known work in this sub-discipline—provides a unique analytical system that demonstrates the listener’s moment-by-moment projections and reinterpretations of the rhythmic surface of music, which can clarify decisions of segmentation in an analysis. London’s *Hearing in Time* takes an empirical approach to meter, delving into the specific ways listeners attempt to synchronize with the rhythms of many different styles of music. He also defines categories of descriptors that can useful for describing many complex and irregular twentieth-century

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rhythmic contexts, including “ametric”, “metrically vague,” and “metrically ambiguous.”\textsuperscript{44} Furthermore, his cyclical representations of meters are very clear and useful for this project, as I describe later in this chapter. Horlacher’s 1995 article “Metric Irregularity in Les Noces: The Problem of Periodicity,” which analyzes Stravinsky’s ballet Les Noces, focuses on the problems that traditional hierarchical theories of tonal meter have in dealing with surface-level metrical irregularity. She considers how motivic factors can give rise to a sense of meter without true periodicity, noting that regularly-occurring “irregularities”—very common occurrences in Dream Theater’s music—can become predictable and reinterpreted as contextually normative by the listener.\textsuperscript{45}

Another important tool that was originally developed for the analysis of rhythm and meter in twentieth-century concert music that is appropriate for the analysis of Dream Theater’s songs is John Roeder’s “pulse stream” analysis. This approach is outlined in his 1994 article on the music of Schoenberg\textsuperscript{46} and developed in his 2001\textsuperscript{47} and 2004\textsuperscript{48} articles, each of which analyzes works by Bartók. Roeder defines a pulse stream as a regularly-recurring accent within a given durational level, and demonstrates in his analyses how rhythmically-complex pieces can exhibit a degree of periodicity despite being ametrical from the standpoint of tonal theories of meter. He also describes the effect pulse streams can have on formal delineation and large-scale rhythmic processes. Roeder’s graphic representations of pulse streams are clear and very useful for this dissertation, though my approach to pulse stream analysis differs from his, as I outline later in this chapter.

\textbf{The Analysis of Rhythm and Meter in Popular Music}

The methodological approaches and techniques I have outlined above have proven especially useful for the examination of rhythm and meter in twentieth-century concert music, and are also relevant to the analysis of later popular music styles that involve similar experiences on behalf of the listener, such as progressive rock and metal. There have been significant analytical contributions examining rhythm and meter in these contexts, which have appropriated and adapted some of the existing models of twentieth-century rhythmic analysis.

\textsuperscript{44} London, \textit{Hearing in Time}, 86.  
\textsuperscript{45} Horlacher, “Metric Irregularity in Les Noces.”  
The most thorough treatment of meter in a progressive metal context that involves adaptations of theories of twentieth-century rhythm is from Pieslak, who adopts Roeder’s pulse stream analysis to elucidate the rhythmic and metric structure of the music of Meshuggah.49 While recognizing the highly irregular rhythmic surface of much of the band’s songs, Pieslak (who also cites Hasty and London) argues that the listener can understand the music as periodic due to accented pulse streams among the different instruments in the ensemble.

Kevin Holm-Hudson, in his second article in Progressive Rock Reconsidered,50 analyzes temporality in Emerson, Lake & Palmer’s “Trilogy” using Kramer’s terms from The Time of Music. He examines the experience of multiple temporalities in the song, such as “moment time” and “multiply-directed time,” as well as “non-directed linear time,” in which “the implied progression from one section to another is continually realized but the deeper-level implications arising from these… progressions fails to be fulfilled.”51 Holm-Hudson’s analysis also implicitly posits the band’s motivic use of meter, a technique attributed to Stravinsky by Horlacher.52 Other scholarly analyses of progressive rock music have used Kramer’s terminology as well, such as those by Cotner53 and Allan F. Moore.54

Bowman and Covach have also published articles on the analysis of progressive rock that specifically address meter. Bowman’s dissertation is the most important of these sources for this project, due to its treatment of the music of Rush—a band that heavily influenced Dream Theater—and its meter-centric descriptions of the progressive rock style.55 However, Bowman’s use of terminology doesn’t convey as much precision as I would prefer—he constantly refers to complex rhythmic/metric structures as “odd time signatures” or, even stranger, “unusually mathematical time signatures.”56 Also, while Bowman frequently engages in interesting interpretations of metrical signification in his dissertation, these are mostly under-substantiated.

52 Horlacher, “Bartók’s ‘Change of Time’.”
53 Cotner, Archetypes of Progressiveness in Rock.
54 Allan F. Moore, Rock: The Primary Text; Developing a Musicology of Rock (Buckingham and Philadelphia: Open University Press, 1993).
55 Bowman, Permanent Change. Bowman routinely refers to metrical complexity whenever describing a Rush song as particularly “progressive.”
56 Ibid., 3.
Covach’s 1997 article analyzing Yes’s “Close to the Edge” is less problematic, and describes the band’s use of “metric dissonance” to create formal delineation and thematic development.57 Twentieth-century analytical models have also been adapted for the analysis of other types of popular music that evoke experiences of meter similar to those of both twentieth-century concert music and progressive rock. David Headlam’s analysis of meter in the blues-derived “classic rock” music of Cream58 parallels analyses of twentieth-century concert music by implicitly invoking Richard Cohn’s concept of “beat-class transposition,” which was initially employed in the analysis of the minimalist music of Steve Reich.59 Also, Mark Butler’s Unlocking the Groove borrows from the models of Krebs, Hasty, Cohn, and Horlacher to analyze electronic dance music, which frequently emphasizes rhythmic and metric complexity.60 Joti Rockwell utilizes beat-class set analysis in his dissertation on bluegrass music, and even invokes Lewinian transformational functions to graphically demonstrate the beat-class “pathway” through the rhythmically-diverse song “Home Sweet Home.”61

**Other Relevant Theories for the Analysis of Dream Theater’s Music**

In addition to these useful sources on the analysis of rhythm and meter in twentieth-century concert music and popular music, there are other approaches from contributions to the scholarly literature that can aid in the analysis of the music of Dream Theater. One such contribution is Wallace Berry’s book Structural Functions in Music,62 which includes his criteria of accentuation, a general definition of meter as “accent-delineated grouping,” and descriptions of the terms “metrical contraction” and “motivic meter.”63 Another useful source is Arnold

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59 Richard Cohn, “Transpositional Combination of Beat-Class Sets in Steve Reich’s Phase-Shifting Music,” *Perspectives of New Music* 30/2 (1992): 146-177.

60 Butler, *Unlocking the Groove*. Butler’s work is very valuable to this project, particularly his analytical examples and his glossary of terms for use in the analysis of rhythm and meter. One concept Butler describes quite clearly is diatonic rhythm. Citing the work of Jay Rahn, Butler describes diatonic rhythms as possessing the qualities of maximal evenness (in which attacks are as evenly spaced as possible within a span) and maximal individuation (in which each rhythmic value within a span has a unique set of durational relationships to all others), both of which are characteristics of the diatonic scale (Ibid., 85). Dream Theater’s music frequently contains diatonic rhythms, particularly in the case of passages involving non-isochronous meter, as I show in Chapters 4 and 5.

61 Joti Rockwell, *Drive, Lonesomeness, and the Genre of Bluegrass Music* (Ph. D. diss., The University of Chicago, 1997), 228.


63 Ibid., 383-397.
Schoenberg’s *Fundamentals of Musical Composition*,\(^{64}\) which describes the motivic process of “liquidation,”\(^ {65}\) a useful term for describing Dream Theater’s treatment of both motive and meter in their compositions, particularly during developmental and transitional sections of music.

A very valuable resource for this project is Christopher Endrinal’s dissertation on the music of U2, which analyzes formal structure in the band’s style of popular music. Endrinal does not focus on rhythm and meter in his dissertation; however, his reconsiderations of some of the generally-accepted labels of the typical formal sections encountered in popular music are useful to my analyses of Dream Theater’s music.\(^ {66}\)

**Analytical Methods**

This project engages music that is not notated in authorized scores,\(^ {67}\) and focuses on meter—a musical “behavior” that ultimately resides in the mind and body of the listener.\(^ {68}\) Additionally, this project includes the listener-centric topic of intertextuality. Thus, the analyst is central to the music’s interpretation, to a degree that exceeds most other types of analysis. As such, it seems most appropriate to embrace an “external esthesic” analytical “situation” as a general approach to Dream Theater’s music, following Jean-Jacques Nattiez.\(^ {69}\) Nattiez describes this approach in *Music and Discourse* as beginning with the listener’s perception of music (the “esthesic” level), and proceeding to the “neutral” level of the score (or in this case, the transcription). In this dissertation, my “neutral” level of transcription is not neutral at all, and reflects my subjective interpretations of Dream Theater’s music, which are in turn influenced by my musical background.


\(^{65}\) Schoenberg defines liquidation as such: “Liquidation consists in gradually eliminating characteristic features, until only uncharacteristic ones remain, which no longer demand continuation…The purpose of liquidation is to counteract the tendency toward unlimited extension (Ibid., 58).”

\(^{66}\) Christopher Endrinal, *Form and Style in the Music of U2* (Ph. D diss., Florida State University, 2008).

\(^{67}\) Warner Bros. Publications has released several “official” transcription books of Dream Theater’s music, a few of which have been edited by John Petrucci. However, these books typically contain guitar transcriptions and/or tablature only. I have found that this often results in bar lines that are notated according to the accentual patterns of the guitar, rather than those of the entire ensemble. Nevertheless, I have consulted these books—as well as various other transcriptions from online sources—in the process of creating of my own transcriptions.

\(^{68}\) While Kramer, Berry, Hasty, Horlacher and others claim that meter is based on listener perception, London explicitly defines meter as “entrainment behavior” on behalf of the listener (London, *Hearing in Time*, 6).

Therefore, explicit recognition of my music listening and performing backgrounds—which are related to my assumptions and biases about music—is necessary. First, I am a bass player. I have quite a bit of experience performing jazz, hip-hop, rock, blues, and progressive metal as an electric bass player, and relatively little experience performing in concert or “art” music settings on the double bass. The majority of my classical training is on trombone, and the extent of my performing experience on that instrument is limited to school-related bands and orchestras. I also consider myself to be an amateur guitarist, drummer and singer. I have experience performing many of Dream Theater’s songs on bass, and have attempted to play the bass part—and in some cases, the guitar part and/or drum part and/or vocal part, with varying degrees of success—for each excerpt discussed in this project. Thus, many of my musical segmentations of the band’s songs derive directly from the physical patterns required to perform them.\(^{70}\) For instance, in metrically-ambiguous contexts, I tend to hear accents based on slight changes in timbre or articulation that result from string changes or position shifts on the guitar and/or bass. My relatively greater experience in performing in popular music contexts also influences the ways in which I approach transcription. As the most prevalent form of notation of the popular musics I perform is the lead sheet—which typically eschews markings such as dynamics, phrasing slurs, expressive markings, etc., and serves more as a simple, general guide to harmonic, melodic, and rhythmic structures than as a genuine performance score—my lead sheet-style transcriptions may strike the reader as lacking in detail. However, I must note that my transcriptions serve only as visual guides whose goal is to express my hearings of Dream Theater’s music in basic terms, rather than as something on which performance should be based.

Another aspect of my musical history that shapes my assumptions for this project is my music listening background. The strict majority of the music I listen to is studio-recorded American music that falls into the broad categories of pop/rock and jazz. While these genres are divergent in many aspects, an important similarity resides in the area of instrumentation—both pop/rock and jazz styles typically employ a bass and a drum set to create the center of the “rhythm section.” Butler, citing Covach and David Temperley, notes that one of the primary

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\(^{70}\) Brian Walsh emphasizes the importance of guitar performance practice in shaping harmonic structure and timbre in rock music in his dissertation (Brian Walsh, *Structure, Function, and Process in the Early Song Cycles and Extended Songs of the Canadian Rock Group Rush* (Ph. D. dissertation, The Ohio State University, 2002), 35-48). I also believe that instrument-specific performance issues affect melodic, rhythmic, and dynamic aspects as well; as such, I attempt to perform all of the excerpts of music included in this dissertation in order to enrich my interpretations.
functions of the rhythm section in popular musics is to establish the meter of a composition. Covach claims that “rock listeners tend to take their tempo and metric bearings from the drums and bass,” and I group myself into his category of “rock listeners.” As such, my transcriptions in this dissertation demonstrate a bias toward hearing the accentual patterns of the drums and bass as primary in the establishment of meter. Also, much of my musical upbringing as a listener has centered on music featuring the free use of meter. The resultant stylistic competency in “progressive” music has perhaps made me more of what Andrew Imbrie calls a “radical listener,” who readily moves to new interpretations of grouping and meter. Thus, my transcriptions may strike more “conservative” listeners—who tend to hold onto previously-established metrical patterns—as being too metrically-“liberal.”

While it is not traditional for an analyst to explicitly cast himself or herself as a major player in an interpretation of a piece of music in the field of music theory, I believe that adding a reflexive approach with regard to my analytical descriptions makes my decisions transparent to the reader. This lends a degree of subjectivity to my work, which I believe to be a positive attribute—particularly for a project that operates on such an analytically “esthesic” level.

Uses and Adaptations of Existing Approaches

Just as the subgenre of progressive metal involves the contraction of two terms—progressive rock and heavy metal—to demonstrate the confluence of the terms’ signified meanings, my definition of meter contracts two existing types of definitions of meter to create a conceptual hybrid. The first type of definition emphasizes accentual grouping, and follows the conceptions of Kramer and Berry, who define meter as “the patterned succession of accented timepoints” and “accent-delineated grouping,” respectively. This type is sufficiently general to allow for the consideration of both periodic and aperiodic meter as truly metrical. However, it implies that accent exists purely on Nattiez’s “neutral” level of the score or the musical object,

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71 Butler, *Unlocking the Groove*, 93-98.
74 My decision to embrace reflexive analysis and cast myself as a “major player” rather than a “bit player” was influenced by Michael B. Bakan’s ethnomusicological work *Music of Death and New Creation: Experiences in the World of Balinese Gamelan Beleganjur* (Chicago: University of Chicago Press, 1999, 13-18).
76 Berry, *Structural Functions in Music*, 303-305. I should note that Berry does not regard meter as being created by a notated score, and indeed he claims that the “true meter” of a piece is its perceived meter (363). However, his definition of meter fails to convey this belief.
whereas I desire to emphasize the role that the listener’s experience plays in interpreting—and even creating—accents. The second type of definition adds this aspect, following listener-centric concepts of meter from Hasty, Horlacher, Roeder, and London which each describe meter as an activity involving projection and reinterpretation. I define meter as “the listener’s perception of accent-delineated grouping in music” in order to meld both definition types. This definition motivates my method of metric analysis of the music of Dream Theater, which involves first interpreting meter from a purely experiential standpoint, then analyzing the musical materials that led to such an interpretation.

A second concept I introduce in this dissertation is “metrical liquidation,” which occurs when Schoenberg’s “liquidation” of a pitch and rhythmic motive occurs simultaneously with what Berry calls a “metrical contraction.”77 Dream Theater often manipulates the domains of rhythm and meter in developmental sections of music, which tends to result in direct relationships between motivic transformation and changes in metrical type and cardinality. In my analyses, I invoke the term metrical liquidation to describe these situations, which typically function in allowing for the presentation of new thematic material.

A third concept is “metrical reinterpretation,” which I adapt from theories of phrase rhythm. Traditionally, the term described the listener’s reinterpretation of weak hyperbeats as strong in situations of hypermetrical overlap and elision, as shown in Rothstein’s Phrase Rhythm in Tonal Music. However, it did not originate to describe reinterpretations of surface-level meter, and might aptly be renamed “hypermetrical reinterpretation”—especially since surface-level meter in these tonal contexts generally remains constant. I am not the first to raise these concerns, as Butler addresses this inconsistency in his book Unlocking the Groove.78 However, his solutions are the terms “reinterpretation of metrical type” and “turning the beat around,” each of which strike me as cumbersome and additionally avoid re-defining the original problematic term.79 Thus, I redefine the general term “metrical reinterpretation” to describe the reinterpretation of surface-level beat strength, beat grouping, and beat division in my analyses.

77 Ibid., 383-397. Berry defines metrical contraction as involving “initiative impulses of increasing frequency.” For instance, a notated metrical contraction could involve a pattern of 6/4 bars followed by a 5/4 bar, then a 4/4 bar, then a 3/4 bar.

78 Butler, Unlocking the Groove, 141.

79 Butler uses the term “reinterpretation of metrical type” to describe situations in which “the entrance of a new textural layer calls a prior metrical interpretation into question,” which he notes is common in instances of metrical ambiguity (Ibid., 130-131). The term “turning the beat around” is used to describe “downbeat relocations” in Butler’s analyses, as well as to playfully invoke Vicki Sue Robinson’s 1977 hit [footnote continued on next page]
A fourth term regards a certain type of metrical dissonance, wherein rhythmic “strata” depart from and return to a state of alignment; this phenomenon is described by Horlacher’s term “cycle,” which is defined as the amount of pulses it takes for polyrhythmic strata to re-align—with the “true” alignment of strata beginnings, not simply rhythmic alignment—in her article “The Rhythms of Reiteration: Formal Development in Stravinsky’s Ostinati.”80 While this term describes the nature of the phenomenon, it does not define it. One recent attempt at a definition comes from a presentation by Zachary Cairns, who uses the term “shared-cardinality grouping dissonance (SCGD),” following directly from Krebs’s writings.81 Cairns’s presentation focused on multiple simultaneous orderings of divisions in quintuple meters, though Dream Theater’s music typically involves SCGDs with larger “cycles.” I give two such examples later in this dissertation, both contained in the subsection on polymeter within Chapter 4.

In my opinion, one of the strengths of London’s Hearing in Time is his cyclical conception of meter, and his circular graphic representations of meter are helpful analytical tools for the understanding of rhythm and meter in Dream Theater’s music. These heuristic devices clearly denote a meter’s general characteristics—such as cardinality and internal grouping—as well as more specific qualities—such as its degree of symmetry/isochrony.

Figure 2.1 reproduces two of London’s diagrams, the first of which contains a general outline of the diagrams’ characteristics.82 Time is shown to flow clockwise from the 12:00-positioned downbeat in these metric diagrams, with the location of each metric articulation (e.g., beats, divisions, subdivisions) demarcated by a dot situated on the circumference of the circle. The second diagram reproduced in Figure 2.1 shows the most common type of metric representation given by London, in which beat divisions are marked on the cycle’s circumference, and beats are connected within the circle with straight lines to communicate their accentual superiority.83 In this particular diagram, a cycle of nine divisions is grouped into three isochronous beats (representing a meter that is most commonly notated as 9/8), and one can

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82 London, Hearing in Time, 64.
83 Ibid., 101.
clearly view the meter’s high degree of symmetry via the equilateral triangle that is generated by connecting these beats inside the circle.

**Figure 2.1** Examples of Justin London’s cyclical visual representations of meter from *Hearing in Time*.

London requires that meter be periodic, which is an idea that I disagree with that possesses limited utility for my analyses in this dissertation. Additionally, London’s claim that polymeter does not perceptually exist influences his metric diagrams, which fail to account for multiple possible groupings within a given accentually-parsed span. In order to reflect my conception of meter more accurately, I adapt London’s diagrams in my analyses, allowing for the presence of multiple conflicting sub-cycles in spans where ambiguities exist. Additionally, I represent transformations of metrical prototypes (such as surface-level “beat expansions” or internal beat repetitions) with sub-cycles presented either inside of or outside of the main cycle path in the diagram. Figure 2.2 reproduces one such diagram from my analysis of Dream Theater’s “The Great Debate,” which is given in Chapter 4. Here, I show an idealized transformation from a non-isochronous quintuple meter to an isochronous quadruple meter with a slower tempo and a diatonic rhythmic syncopation, which takes place between the second and third Verse sections of the song and involves an intermediate beat repetition. I depict this beat repetition with an additional line connecting beats three and four during the transformation stage, which is shown in the middle of Figure 2.2. Additionally, I represent two concurrent rhythmic strata in the third stage of the diagram, with the stronger 4+4+4+4 pattern (which is performed
by the drums) indicated with a solid line, and the weaker diatonic rhythmic syncopation (which is performed by the guitar) indicated with a dotted line.

Figure 2.2 A London-style diagram of the metrical transformation and intermediate repetition in “The Great Debate.”

I also adapt Roeder’s pulse stream analysis in my interpretations of Dream Theater’s music. In this case, I do not substantially deviate from Roeder’s analytical notation style, but rather from his “analytical situation,” which seems to involve beginning at the neutral level of the score and proceeding to the esthesic level. In other words, Roeder seems to analyze local periodicities using the score as his basis, in order to suggest a number of possible hearings for listeners. On the other hand, I approach Dream Theater’s music from an experiential standpoint first, proceeding to the neutral level afterward in order to uncover the musical elements that have clarified or obscured my interpretation(s). Certainly this approach is more appropriate for non-notated music such as Dream Theater’s; however, I believe that it would be a more attractive method even if the band released authorized scores. It is simply more interesting to me to present a hearing whose possibility is guaranteed to exist—because I have already heard it—than to speculate about ways in which other listeners might conceivably hear a piece of music.
Original Methods

This project originated as research for a doctoral seminar course in the Fall semester of 2007 on the analysis of popular and world music at Florida State University, which was led by Jane Piper Clendinning. Over the summer, students in the course were instructed to prepare general, introductory analytical material on their topic of choice. My decision to research Dream Theater’s music for this dissertation had already begun to crystallize, and I chose to analyze metric complexity—the most characteristic element of the band’s music—throughout the group’s studio-recorded catalog. Initially, my goal was simply to tally the number of instances in which I heard metric complexity in each song and album, as my hypothesis at the time was that Dream Theater’s music had become less and less metrically-complex throughout its career. However, I eventually found no evidence supporting this hypothesis, and became more interested in the details of the wide variety of metrical structures I was hearing in the band’s music. Throughout the seminar—and indeed throughout my dissertation research—I made time for focused listening sessions of Dream Theater’s albums, in which I wrote my observations of—and reactions to—each of the band’s songs. After each session, I adjusted the working catalog of metrical phenomena that I had created by hand until I was satisfied enough with it to transfer the results into a Microsoft Excel spreadsheet. Eventually, the number of metrical phenomena that I felt to be deserving of mention in the catalog was increased to six due to the frequency with which I perceived them, and I included columns for two main types of metrical expansion (motivically-related and motivically-independent), two types of metrical contraction (motivically-related and motivically-independent), and a column apiece for longer-range metrical processes and metrical reinterpretation. Additionally, I added a “comments” column at the far right, which made it possible to note less frequent occurrences such as polymeter and “metrical liquidation,” as well as to provide any other noteworthy information on the musical excerpts in question. I have provided the most recent version of my catalog in the Appendix of this dissertation.84

I recognized early on during Professor Clendinning’s seminar that analyzing rhythm and meter in a manner largely independent of other musical domains would be an impossible and undesirable task, and would render my analyses of Dream Theater’s music incomprehensive and

84 I do not consider the Appendix to represent my “final hearings” of Dream Theater’s songs, as the prospect of a “final hearing” is extremely unattractive to me. Rather, the Appendix communicates my interpretations of this music at the time of writing this dissertation. I sincerely look forward to re-evaluating the conclusions presented in my catalog through continued listening in the future.
boring. Thus, I began to focus my attention on the melodic and harmonic structure of the band’s songs, as well as other salient elements, including timbre, lyrics, imagery, form, and instrumentation. Additionally, it became clear to me that it would be irresponsible to discuss Dream Theater’s use of meter without making connections to the similar treatment of meter in prog metal’s primary parent genre, ’70s-era progressive rock. As a result, I broadened my project’s scope to comprise a general analysis of Dream Theater’s characteristic musical traits and major stylistic influences (which became Chapter 3), as well as a more detailed consideration of the band’s most prominent trait—rhythmic and metric complexity (which became Chapter 4). Finally, I chose to examine two representative songs from Dream Theater’s oeuvre in their entirety, in order to demonstrate the ways in which the band typically combines the prominent stylistic elements discussed in Chapters 3 and 4 in their compositions. These songs, “Sacrificed Sons” and “Constant Motion,” are analyzed in Chapter 5.

As alluded to earlier in this chapter, I consider the “primary texts” in this study to be Dream Theater’s recorded musical works rather than scores, transcriptions, or other distorted recreations of these works. My lead sheet-style transcriptions throughout this dissertation—all of which were created with the notation software program Sibelius 3—thus function as visual guides whose goal is to express my hearings of Dream Theater’s recorded music in general terms; I must re-emphasize that their goal is not to reconstruct the music in an exact, “authentic” manner that would yield an accurate reproduction through performance. However, I have attempted to express my hearings clearly in the transcriptions. For the sake of clarity, some instruments are, at times, intentionally omitted; for instance, many examples provide the main guitar riff of a given song while eschewing the keyboard and/or bass parts—especially when these instruments are doubling the riff at the octave. Also, while I frequently refer to musical events by their clock-time designations, I provide measure numbers from my own transcriptions at times, in order to clarify the notated location of musical events and passages. Additionally, I capitalize all form and phrase rhythm labels in my analyses, which can help the reader differentiate between words with multiple musical meanings (e.g. Chorus versus chorus, Statement versus statement, etc.).

Though I typically use Endrinal’s formal labels in my analyses, one non-standard formal label that I employ requires special mention—that of the Unison section. I have chosen to use the term Unison to describe a type of instrumental Interlude section that features a prominent
melody that is harmonized primarily at the unison or the octave. While octave-doubled melodies are technically distinct from unison melodies, and thus labeling both types with the term Unison is problematic, many rock musicians—including the members of Dream Theater—refer to these instrumental sections in this manner, and I have decided to follow this “insider” labeling tradition in my analyses.

The notation of drum parts in my transcriptions—with hi-hat cymbals notated with “X” note heads in the first space above the top line of the staff, crash cymbals notated with “X” note heads on the first ledger line above the staff, etc.—follows the Percussive Arts Society standard for drum set notation, which coincides with most of the rock drum transcriptions that I have seen and informs the stock settings on the notation software programs Finale and Sibelius. Additionally, my guitar transcriptions use the label “P.M.--------” to indicate portions of music that are performed with palm muting, a very frequently-used technique in heavy metal music.

Specific pitch designations in my analyses conform to the system advocated by the Acoustical Society of America, where “middle C” is C4, and all pitches within the octave range immediately above a given pitch retain the same numerical designation until reaching the next C. Accordingly, a minor second below middle C is B3, a minor sixth below middle C is E3, and so on.

The chord symbols used in this project, which are primarily based on the jazz “fake books” with which I have the most experience, always include a designation of quality (such as “m” for minor, “+” for augmented, “7” for dominant seventh, “maj7” for major seventh, “sus” for suspended fourth, or “5” for a “power chord”), except in the case of the major triad, which is simply labeled by its root (e.g. “C”). As in many guitar transcription books, I sometimes use the designation “N.C.” to denote situations in which “no chord” is unambiguously projected—a common occurrence during riff-oriented sections of music. Chordal extensions are designated by Arabic numerals (such as “6” for added major sixths), and, as extension labels beyond the seventh imply all extensions below them, the superscript “add” is often used to label single extensions (for instance, “Cm11” represents a C minor seventh chord with an added major ninth and perfect eleventh above the root C, whereas “Cm7add11” represents a C minor seventh chord

85 However, there are several minor notational deviations I have come across in my research—which speak to the continued lack of standardization in drum set notation.
with an added perfect eleventh only). Finally, chordal inversions are indicated by a forward slash followed by the bass note: for example, a second-inversion C major triad is labeled C/G.

Overall, my analytical approach is biased, subjective, and often explicitly reflexive, as it is not my aim to find the “truth” of Dream Theater’s music. However, I hope that my analyses in this dissertation demonstrate that my experiences of the band’s music are not pure happenstance, and are derived in large part from “the music itself.” For, while it cannot be denied that stylistic competency, training, and performance backgrounds play an important part in one’s experience of music, I do believe that the listener’s response is primarily conditioned by signals built into the composition.86

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86 This statement is a recomposition of Schachter’s more direct claim that “the listener’s response is conditioned by signals built into the composition,” implying that the response is only guided by the musical object (Schachter, “Aspects of Meter,” 82).
CHAPTER 3
DREAM THEATER’S SOUND PART I: GENERAL STYLISTIC TRAITS

“We never sat down and said we want to make a mixture of ‘70s prog and ‘80s metal, it just flowed out. Our initial purpose and sound hasn’t really strayed from when we got together.”

John Petrucci

Introduction

Petrucci’s description of Dream Theater’s overall sound as a mixture of progressive rock and heavy metal strikes me as suspicious for two reasons. First, this quotation is taken directly from the “official” biography from the website of the band’s current record label, Roadrunner Records. Thus, it can be interpreted as an attempt by the label to market Dream Theater to certain demographics. Second, the specific reference to the “classic” eras of progressive rock and heavy metal seems to be a blatant attempt to confer authenticity upon Dream Theater’s music. This interpretation is also supported by Petrucci’s claim that the band’s style of music was not calculated: “it just flowed out” in a natural—and thus authentic—manner. Despite these concerns, however, I find Petrucci’s description of Dream Theater’s unique sound to be quite fitting. Indeed, the musical elements I perceive as being the most salient in the band’s music can be directly linked to progressive rock and heavy metal music from these particular eras. This chapter explores the correlations between Dream Theater’s music and the “parent styles” of prog and metal in more detail, and additionally concerns itself with answering the following question: “what is the relative balance of the elements in the stylistic “mixture” Petrucci describes?”

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2 Sheinbaum observes that the prevailing rock aesthetic considers “natural” and “intuitive” music to be authentic in Progressive Rock Reconsidered (Sheinbaum, “Progressive Rock and the Inversion of Musical Values,” 21-22).
3 I initially intended to extend the metaphor and address the stylistic mixture’s homogeneity/heterogeneity. However, after careful listening, I have found no evidence to substantiate a claim in either direction—at times, the band’s music melds the influences of prog and metal seamlessly; at others, these styles appear discretely.
Figure 3.1 reproduces a 2007 photograph of Dream Theater that includes imagery pointing to these parent styles. Deconstructing and interpreting the image with regard to typical heavy metal and progressive rock imagery can aid in the understanding of the nature of the stylistic mixture of the band’s music. The predominance of heavy metal imagery in the photograph is no coincidence, as the band had recently signed with Roadrunner Records, which is considered to be a “metal” label and has marketed the band’s aggressive image to a large extent, perhaps to maintain a consistent brand identity.

Figure 3.1 Dream Theater, from the Systematic Chaos photo shoot for Roadrunner Records.

Prominent aggressive, dark images in this photograph—which are consistent with heavy metal imagery—include the barbed wire fence in the background and the menacing glares of the
band members (particularly LaBrie, second from the right). The band’s clothing is excessively dark, and every member is wearing a black jacket with denim jeans. This type of dress was particularly popular in the 1980s heavy metal scene, to the extent that the English metal band Saxon named their 1981 album “Denim and Leather.” Perhaps the clearest signifier of Dream Theater’s heavy metal roots, however, is the members’ long hair (save Rudess, whose head is shaved bald). Walser notes in Running With The Devil that “long hair marks [musicians] as members of a heavy metal subculture.”

The members of Dream Theater, seemingly to situate themselves in the metal community, routinely emphasize the length of their hair in interviews. Additionally, they disdainfully recall the Falling Into Infinity period in their careers when they cut their hair on the advice of their record label Elektra in order to project a more mainstream image to potential fans. Another hair-centered heavy metal image in the photograph is Portnoy’s painted goatee, which I interpret as a tribute to the recently-deceased Pantera guitarist “Dimebag Darrell,” who was famous for his painted goatee and was murdered on-stage in 2004.

All of these elements are consistent with the heavy metal image, and can lend insight into the band’s musical style. However, while heavy metal imagery abounds in the photograph, it is situated on the periphery of the photograph, while progressive rock imagery is presented at its very center. For instance, the cover of what is perceived to be the first and most “authentic” progressive rock recording—King Crimson’s In the Court of the Crimson King—is pictured on the shirt worn by Portnoy, which is the centermost image in the shot. Additionally, Portnoy is situated in the center of the band in the photo; this can also be interpreted as a “progressive” element, as the perceived leader of famous prog groups was rarely the vocalist as in pop/rock, or the guitar player as in metal. Well-known examples of non-vocalist, non-guitarist bandleaders in the history of progressive rock include keyboardists Rick Wakeman of Yes and Keith Emerson of Emerson, Lake & Palmer.

Notions of center and periphery can be applied metaphorically to Dream Theater’s signature sound. While the interplay between the two parent genres of progressive rock and heavy metal differentiates the music of prog metal bands from that of both prog bands and metal

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4 Walser, Running With The Devil, ix.
5 Dream Theater gave a more explicit tribute to “Dimebag” in 2005, when they performed the Pantera song “Cemetery Gates”—a song in which the guitarist recorded a memorable solo—while on tour.
6 Most scholars and journalists point to In the Court of the Crimson King as the first major prog recording, including Stump (Paul Stump, The Music’s All that Matters: A History of Progressive Rock (London: Quartet Books Limited, 1997), 52), Holm-Hudson (Holm-Hudson, ed., Progressive Rock Reconsidered, 6), and Prendergast (Prendergast, The Ambient Century, 271).
bands, Dream Theater’s emphasis on progressive rock elements further differentiates them from other groups within the subgenre. The All Music Guide website observes the unequal balance of prog and metal influences in Dream Theater’s sound in its description of the prog metal style: “Of course, certain bands emphasize one influence over the other—Dream Theater, for instance, lean toward prog more than some of their peers.”

I conceptualize Dream Theater’s syncretic sound as having a structural core of progressive rock whose periphery abounds with stylistic elements of heavy metal. This chapter delves into this conceptualization, mapping each of Dream Theater’s most salient musical traits onto either the primary parent style of progressive rock or the secondary parent style of heavy metal.

The Center of the Sound: Progressive Rock Elements in Dream Theater’s Music

Chris Atton accurately describes the common negative characterization of progressive rock in his article “Living in the Past?,” which typically involves notions of “…pretentious musicians in ridiculous garb surrounded by banks of keyboards playing bombastic, overlong compositions in time signatures that you couldn’t dance to: a music as far removed from ‘real’ rock n’ roll as could be imagined; a music that failed both as rock music but also as classical music.”

This characterization, while negative, engages the perception of dress, instrumentation, composition length, and, importantly, meter in progressive rock. Additionally, it parallels most negative characterizations of Dream Theater’s music by critics and listeners, which seems to indicate the extent to which the styles are similar.

The most emphasized “progressive” aspect of Dream Theater’s sound is rhythmic and metric complexity, which typifies progressive metal as a subgenre and is considered in detail in

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7 All Music Guide, “Progressive Metal.”
8 Alan P. Merriam describes the term “syncretism” as the process through which elements of multiple cultures are blended together, toward the creation of new musical hybrids (Alan P. Merriam, Anthropology of Music (Evanston, IL: Northwestern University Press, 1964), 314.
9 My perception of Dream Theater as a primarily “progressive” band is also supported by some of the group’s tour information and propaganda. For instance, during Dream Theater’s tour with Yes in the summer of 2004, posters promoted individual shows as “two of the biggest names in progressive rock together for one night (Wilson, “Images,” 120.)” Dream Theater has also headlined the “Progressive Nation” tour in 2008 and 2009. However, the band has performed at more heavy metal-oriented venues, such as the Gods of Metal Festival on June 3rd, 2007 (Wilson, “Images,” 188).
10 I use the relative balance of these traits’ presence in Dream Theater’s albums as criteria for Figure 1.2 in Chapter 1.
11 Atton, “‘Living in the Past?’” 29.
Chapter 4. However, the band’s music abounds with other stylistic markers that point to the progressive rock sound, involving the domains of timbre, form, harmony, imagery, and lyrics.

**Atypical Rock Instrumentation**

One of the most salient aspects of progressive rock music is its variety of unusual timbres, which are often created by non-standard rock instruments. Holm-Hudson emphasizes the use of non-standard rock instrumentation in his description of progressive rock’s sound in *Progressive Rock Reconsidered*. Sheinbaum agrees, positioning “reaching beyond traditional rock instrumentation; focus on keyboards” as the first element in his list of prominent stylistic elements in progressive rock. The futuristic, transcendent themes of prog rock instrumentation are echoed in the instrument types typical of prog metal as well. Two main categories of atypical rock instruments used in Dream Theater’s music that were commonly used in the prog era are “classical” instruments and keyboard instruments. Additionally, Dream Theater uses a few other instruments in their compositions that can be considered derivations of traditional rock instruments.

**“Classical” instrumentation.** Scholars have noted that the genre of progressive rock has also been labeled “art rock,” “symphonic rock” or “classical rock.” These characterizations communicate the significant extent to which listeners have paralleled prog with concert music, which is due to similarities in aesthetic, form, harmony, and other domains. However, the most immediately perceivable musical element that may have motivated such descriptions is timbre, which relates the two styles due to similarities in instrumentation. The most well-known appropriation of concert music instrumentation in progressive rock is the orchestra, which is highlighted by both Holm-Hudson (who cites the Moody Blues’ use of an orchestra in the album *Days of Future Passed* as influential in the formation of prog) and Prendergast (who identifies Rick Wakeman’s use of a ninety-piece orchestra in *Myths and Legends of King Arthur* as an example of prog’s grandiosity). Dream Theater did not often use live orchestral instruments in its early studio recordings, opting instead to create orchestral timbres with keyboard

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15 Cotner argues in his dissertation that similarities with concert music are heard especially in the music of the classic-era prog bands from the U.K. (Cotner, *Archetypes of Progressiveness in Rock*, 35-39).
However, more recently, the band has chosen to hire instrumentalists to create more authentic orchestral timbres in their music. Examples include the use of a solo cellist (Eugene Friesen) on “Vacant” from *Train of Thought*, a string quartet on “The Answer Lies Within” from *Octavarium*, and especially a sixteen-piece orchestra on both “Sacrificed Sons” and “Octavarium” from the same album. Additionally, the live album *Score* features a thirty-piece orchestra backing the band in renditions of these four songs, as well as in arrangements of compositions from earlier albums—notably the entire “Six Degrees of Inner Turbulence” suite.

**Keyboard instruments.** One of the hallmarks of progressive rock instrumentation is its emphasis on keyboards—particularly synthesizers and other electronic keyboard instruments. In fact, the prominent use of keyboards is the first musical element cited by Holm-Hudson in his definition of the style. In the “classic” prog era, the use of what today are considered typical electronic keyboards was ubiquitous; however, an especially characteristic element of prog instrumentation during this time was the employment of non-standard keyboard instruments such as the pipe organ, harpsichord, Hammond organ, and especially the Mellotron and Moog synthesizer. Prendergast notes that these keyboard instruments were often considered markers of a band’s identity; for instance, he argues that King Crimson’s sound was largely defined by its use of the Mellotron, while Keith Emerson was known for his use of the Moog synthesizer. Jordan Rudess actually uses more recent versions of both of these instruments in Dream Theater’s songs (the digital Memotron and the analog MiniMoog Voyager synthesizer), but is also known for his use of the Haken Audio Continuum Fingerboard, a MIDI controller that enables performers to create portamento or “keyless” synthesizer timbres (see Figure 3.2). The Continuum can be heard on *Octavarium*’s “Sacrificed Sons” and “Octavarium,” as well as *Systematic Chaos*’s “The Dark Eternal Night.”

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18 An exception is the soprano saxophone in the song “Another Day” from *Images and Words*.
20 Holm-Hudson cites the period between 1969 and 1977 as representing the classic prog era in *Progressive Rock Reconsidered* (Ibid., 2). Bowman observes that the era is said to have definitively ended by 1977 by scholars (specifically with the release of Yes’s album *Going for the One*), though he notes that later ‘70s and ‘80s prog can be heard in the works of Kansas, Supertramp, Rush, Peter Gabriel, and others (Bowman, *Permanent Change*, 43).
Figure 3.2 The Haken Audio Continuum Fingerboard, used by Jordan Rudess.

Derivations of typical rock instruments. While Portnoy, Petrucci and Myung perform on traditional rock instruments (drums, guitar and bass, respectively), their particular instruments are atypical of pop/rock music and reflect the progressive rock aesthetic of “bigger is better.” For instance, Portnoy’s drum kits—which he gives names such as the “Siamese Monster” used on Six Degrees of Inner Turbulence (see Figure 3.3)—are massive to the extent that they receive attention in the press.  

Figure 3.3 Mike Portnoy playing his “Siamese Monster” drum kit.

22 Most interviews with Mike Portnoy include some discussion of his large drum kits, particularly published interviews in magazines such as Modern Drummer. Portnoy’s use of ever-expanding drum setups is clearly influenced by his idol, Rush’s drummer Neal Peart, to whom Portnoy is constantly compared in magazines and internet forums.
Also, while Petrucci and Myung often use standard electric guitars and basses, Myung’s instrument of choice is the six-string bass (which is tuned in perfect fourths in standard tuning, adding a low B0-sounding string as well as a high C3-sounding string), while Petrucci frequently uses a seven-string guitar (which adds a low B1-sounding string in standard tuning). Additionally, Myung uses a Chapman Stick on a few Dream Theater albums (including *Falling Into Infinity* and *Six Degrees*), which is a fretted, electronic “tapping” instrument derived from the electric guitar and the piano (see Figure 3.4). The Chapman Stick is a decidedly “prog” instrument, and was famously used by King Crimson bassists Tony Levin and Trey Gunn. The extended size and registral range of all of these stringed instruments is noteworthy; however, the ease with which they allow performers to execute virtuosic passages of music is a more important element, and perhaps influences progressive musicians’ choices of instruments to a greater degree.

**Figure 3.4** John Myung’s six-string bass and twelve-string Chapman Stick.
Extended Forms/Concept Albums

One of the most identifiable—and polarizing—features of progressive rock compositions is their long duration, often resulting from extended forms. The published characterizations of prog by the fanzine Prog Archives, rock journalist Jerry Lucky, scholars such as Sheinbaum, and—perhaps most importantly for this project—Petrucci all cite protracted song length as one of the most—if not the most—distinctive markers of the genre. Formally-traditional Verse-Chorus forms are used in progressive rock, though they are most often varied and expanded versions of the forms typical of pop/rock songs. The most immediately recognizable song forms that are characteristic of “progressive” compositions, however, are multi-movement forms and concept albums. David Montgomery notes that while there were several examples of earlier concept albums (including several outside of the rock genre), the term “concept album” was not widely used in rock journalism prior to the release of The Beatles’ Sgt. Pepper’s Lonely Hearts Club Band, an influential album that Montgomery cites as a “template” for the concept albums of classic-era prog bands. Some famous concept albums from the classic prog era have been discussed at length by scholars, including Yes’s Tales from Topographic Oceans (81 minutes) and Pink Floyd’s The Dark Side of the Moon (43 minutes); the latter is discussed in a book-length collection of essays written by numerous scholars. Additionally, famous multi-movement suites from classic prog bands—some of which rival the scope of concept albums—have received scholarly attention, such as Yes’s four-movement

23 Prog Archives, “A Definition of Progressive Rock Music.”
26 Dream Theater, Score DVD Documentary.
27 David Montgomery gives several competing definitions of concept albums from rock scholars, journalists, and performers in his dissertation, all of which discuss lyrical unity, thematic recurrence and development, and boundary-obscuring transitions between traditional song forms as notable components (see David Montgomery, The Rock Concept Album: Context and Analysis (Ph. D. dissertation, University of Toronto), 2002). Montgomery also focuses on marketing strategies involving concept albums—particularly album covers and liner notes—which are instrumental in creating the perception of a unified totality. While each of these elements is emphasized to a different degree by individual scholars, they can all be said to contribute to the essence of a concept album.
28 Ibid., 36. Montgomery also cites numerous scholars and critics who count Sgt. Pepper as the first true, prog-like concept album (Ibid., 4-10).
29 Ibid., iii.
“Close to the Edge” (18 minutes) and Genesis’s seven-movement “Supper’s Ready” (23 minutes). Dream Theater’s compositional “verbosity” is well-documented, and is directly linked to the traditions of progressive rock—particularly in instances wherein the band explicitly cites the work of classic-era prog artists as influential, as is the case with its concept album Scenes From A Memory. The extent to which prog’s song forms have influenced Dream Theater is best elucidated by this information: every Dream Theater album includes at least one multi-movement composition. The most noteworthy example of an extended form from the band’s catalog is the recently-completed “Twelve-step Suite” (known by fans alternatively as the “Alcoholics Anonymous Suite” or “AA Suite”), which deals lyrically with Portnoy’s rehabilitation from alcoholism and includes twelve movements spanning five studio albums.

As noted in Chapter 1, Petrucci attributes the practice of interrupting a multi-movement suite to Rush, whose composition “Cygnus X-1” concluded the album A Farewell to Kings and began the subsequent album Hemispheres. Thus, Dream Theater’s “Twelve-step Suite” can be considered a continuation and intensification of this formal practice, whose roots are in the progressive rock genre.

**Displays of Virtuosity**

One of the main ways in which instrumentalists showcase their virtuosity is with solo passages. In prog, a genre typified by “an emphasis on flashy virtuosity,” these solo passages are typically extended to a degree atypical of other rock traditions. As solo passages are relatively rare in most traditional rock formats, their presence in prog songs is noteworthy; however, it is the presence of multiple solo passages within single compositions that is especially characteristic of the genre. In fact, Prog Archives lists “solo passages for virtually every album in the band’s discography.”

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32 Covach, “Progressive Rock, ‘Close to the Edge,’ and the Boundaries of Style.”
34 This assertion includes albums possessing single movements of multi-movement compositions that span multiple albums. For instance, Images and Words does not include a stand-alone suite; however, its fifth track, “Metropolis Pt. I: The Miracle and the Sleeper,” represents part of a larger work that is continued in Scenes From A Memory.
35 The final three movements to the “Twelve-step Suite” are included in Dream Theater’s 2009 album Black Clouds and Silver Linings, which I do not address fully in this dissertation, as it was released at the end of the writing process. The previous nine movements can be heard on the albums Six Degrees, Train of Thought, Octavarium, and Systematic Chaos.
36 Bowman calls “Cygnus X-1—Part I” “one of Rush’s most musically “progressive” songs,” noting its emphasis on electronic sounds, harmonic intricacy, instrumental Unison sections, and metrical complexity (Bowman, Permanent Change, 130).
instrument, designed to showcase the virtuosity of the instrumentalists” as one of the main markers of the progressive rock genre.\(^{38}\) This “democratic” approach to solo passages can be compared to the treatment of solos in another rock genre emphasizing virtuosity—heavy metal music—in which the lead guitarist is the only instrumentalist typically afforded an opportunity in the spotlight.\(^{39}\) In essence, prog’s treatment of solo sections of music is most closely related to that of jazz\(^{40}\)—though many progressive rock solos aren’t improvised, but rather pre-composed.\(^{41}\)

Dream Theater’s songs routinely include extended solo sections—an aspect of Yes’s music cited by Petrucci as being particularly influential—featuring every instrumentalist in the ensemble, thus diverging from typical metal practice and paralleling that of prog rock. The band’s solo sections—which are almost always composed in minute detail, rather than improvised—are often several minutes in length, and can demonstrate their own complex formal plans, sounding as if they are complete pieces of music joined together with others to create composite forms.\(^{42}\) These extended solo sections also include flashy displays of virtuosity by the instrumentalists which have garnered them both acclaim—in the form of numerous “Best Performer” awards from publications such as Guitar World, Bass Player, and Modern Drummer—and derision from fans. A clear example of a “democratic” approach to virtuosic solo passages in Dream Theater’s catalog is the Interlude section of “The Ytse Jam” from When Dream and Day Unite, which is discussed in more detail in Chapter 4.

While this section has focused on displays of virtuosity found in solo passages in progressive rock and the music of Dream Theater, these passages aren’t the sole compositional locations in which virtuosity is typically perceived. Often, showy displays of virtuosity permeate the entirety of a song’s form in both styles.\(^{43}\) One example of Dream Theater’s music wherein

\(^{38}\) Prog Archives, “A Definition of Progressive Rock Music.”
\(^{39}\) Walser observes that “few [metal songs] contain solos by any other instrument (Walser, Running With The Devil, 50).”
\(^{40}\) Bowman’s dissertation points out the significant influence on progressive rock from jazz, noting some prog performers (including Bill Bruford, the drummer for both Yes and King Crimson) whose musical idols were jazz performers (Bowman, Permanent Change, 39).
\(^{41}\) The prog band King Crimson is well-known for their emphasis on improvisation, however.
\(^{42}\) The typical extended solo section in Dream Theater’s music occurs in a contrasting Interlude section of music toward the end of the overall form, thus creating a type of composite ternary as a formal archetype, in which a traditional verse-chorus structure constitutes the bookending “A” sections and the sizeable, self-contained interlude section constitutes the “B” section.
\(^{43}\) Bowman observes that “virtuosic ensemble playing” was a staple of the ’70s-era music of Genesis and King Crimson in particular (Bowman, Permanent Change, 38).
emphasis on virtuosity is particularly noteworthy is “The Dance of Eternity” from the album *Scenes From A Memory*. While this song includes a handful of brief solo passages, as well as more extended bass and keyboard solos, it is remarkable more for its consistent level of showmanship than any particular solo passage. As such, “The Dance of Eternity” is both lauded for its complexity—Wilson describes it as “genuinely breathtaking”—and disparaged as the ultimate example of Dream Theater’s musical conceit by listeners.

**Imagery**

A crucial manner in which popular music acts control their image—and thus the perception of their music—is through visual art and liner notes in recordings. Prog Archives notes that in classic-era progressive rock, there was “an aesthetic linking the music with visual art,” such that album covers and liner notes were generally given much more attention than in other rock styles. One particularly notable rock recording that is considered to have influenced both the musical and visual art directions of early progressive bands is The Beatles’ *Sgt. Pepper*, whose cover—an elaborate collage—is one of the most memorable in rock history.

As a result of the increased attention given to visual art and packaging by progressive rock musicians, some bands became recognized for the art direction of their albums nearly as much as for their sound—a band’s “look” became integrated into its overall musical identity. This led to fame for specific visual artists and design studios, most notably Roger Dean (who became known for his work on Yes’s albums), the Hipgnosis group (whose initial fame was linked primarily to its covers for Pink Floyd albums, though the group eventually produced covers for several artists, including Led Zeppelin), and H.R. Giger (whose painting for Emerson Lake and Palmer's *Brain Salad Surgery* is considered to be “one of the most famous album sleeves ever produced” (see Figure 3.5)).

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44 Wilson, “Words,” 249.
45 Prog Archives, “A Definition of Progressive Rock Music.”
47 Prog Archives, “A Definition of Progressive Rock Music.”
48 Ibid.
Dream Theater explicitly recognizes the striking covers of classic prog albums as influential to its treatment of the packaging of its own recordings. In many cases, Dream Theater has even enlisted artists that have worked with their prog predecessors, such as Larry Freemantle (who worked with Yes and Emerson, Lake & Palmer, and created the album covers for *Images and Words, Awake*, and *A Change of Seasons*), Storm Thorgerson (the leader of Hipgnosis, who created the cover for *Falling Into Infinity*), and especially Hugh Syme (who, as noted in Chapter 1, worked as the designer of many of Rush’s album covers, and created the covers for *Octavarium* and *Systematic Chaos*). As Portnoy explains, “we were into all those Yes and Pink Floyd [album] covers, and liked the idea of having artwork that was striking….”\(^{49}\) Incidentally, all of the Dream Theater albums that possess extravagant, vividly-colored cover art reminiscent of classic prog rock recordings (*Octavarium, A Change of Seasons, and Six Degrees of Inner Turbulence*) contain multi-movement suites lasting over twenty minutes and are considered to be among the band’s most prog-inspired albums.

Portnoy also cites prog album covers that “utilized different elements of the lyrics” in their images as particularly influential.\(^{50}\) One clear example of Dream Theater’s album cover artwork referencing its lyrics is *Awake*, whose cover includes an image of a spider in a web (alluding to the song title of “Caught in a Web”), a large mirror (referencing the song “The Mirror” as well as the lyrics to “Voices”), and a moon with a clock overlay showing the time to be six o’clock (alluding to the song “6:00” (see Figure 3.6)).

\(^{49}\) Portnoy, quoted in Wilson, “Words,” 128.

\(^{50}\) Portnoy, quoted in Ibid., 128.
53 As mentioned previously, progressive rock has also been labeled “art rock,” “symphonic rock” or “classical rock” by fans and critics. Each label communicates the significant degree of influence from concert or “art” music on the genre, which is discussed by most prog scholars. Holm-Hudson discusses the prominence of intertextual references to concert music—music considered to possess prestige in England and America—in progressive rock, claiming that the term “progressive rock” came to describe those bands “that aimed at incorporating some degree of cultivated musical influence into a rock context.”\(^5\) However, he importantly notes that prog is not simply rock influenced by “classical music,”\(^52\) but rather rock influenced by a “network of styles” that are often radically juxtaposed.\(^53\) Sheinbaum also emphasizes the importance of polystylistic musical borrowing in the genre, claiming that “a hallmark of [progressive rock] is precisely its widespread eclecticism.”\(^54\) Cotner agrees, arguing that the true nature of progressive rock isn’t the use of references to art music, but rather eclecticism as a whole—

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\(^52\) Covach is criticized by Bowman for his singular emphasis on the intertextual connections between Western “art” music and prog in his analysis of Yes’s “Close to the Edge,” which Bowman calls “highly misleading” due to other overt references to psychedelic rock, country, jazz and blues music (Bowman, *Permanent Change*, 40-41).
\(^53\) Holm-Hudson, ed., *Progressive Rock Reconsidered*, 10-11. Style juxtaposition is typically associated with postmodern concert music, though it is also a hallmark of progressive rock from the “classic” era. Lucky cites “compositions created from unrelated parts” as a major factor in the formation of the progressive rock style (Jerry Lucky, *The Progressive Rock Files*, 120-121).
references to a wide variety of musics, including but not limited to art music. Richard Middleton even cites “eclecticism” as the primary marker of progressive rock. The musical emphasis on eclecticism in progressive rock is maintained in progressive metal—especially in Dream Theater’s songs—and constitutes one of the major correlations between the two styles.

As Dream Theater’s music is primarily influenced by progressive rock, there may exist in it an indirect influence, where concert music—along with the many other styles alluded to in prog music known by the band—can be said to shape the band’s music through its prog rock predecessors. Additionally, some compositions from these various styles influence the band’s compositions directly. While attempting to prove historically-linear influences on Dream Theater on a song-by-song basis is a highly problematic endeavor, in many cases, the band explicitly references musical source materials—a kind of “poietic intertextuality” that has drawn criticism from many rock journalists. Examples of explicit musical reference include Dream Theater’s live performances of songs (cover songs) and complete albums (“cover albums,” perhaps) by other bands, Portnoy’s tribute bands, the so-called “inspiration corner” set up by the band during studio recording sessions, as well as musical quotations, allusions, and parodies.

Cover songs and cover albums. Dream Theater’s practice of referencing the work of other musicians by performing cover songs during concerts is not at all atypical in rock music. When a rock band performs a “cover” of another musical work in a concert setting, however, the extent of the covered artist’s influence on the performers’ own compositions is still difficult—if not impossible—to ascertain. Nonetheless, when a band covers another artist’s songs and releases them as part of a studio recording (as with Dream Theater’s A Change of Seasons,

55 Cotner, “Pink Floyd’s ‘Careful With That Axe, Eugene’,” 86. Cotner describes the eclecticism of progressive rock in more detail in his dissertation, noting that this element makes it difficult to discern exactly where the genre’s stylistic boundaries are located—if it is a discrete genre at all (Cotner, Archetypes of Progressiveness in Rock, 289).


57 The fanzine Prog Archives asserts that one of prog metal’s trademarks is that it “draws from a broad range of influences (Prog Archives, “Progressive Metal”).”

58 Walser attempts to describe indirect musical influence as elemental in progressive rock as well, detailing the perception of The Beatles’ Sgt. Pepper as being very “progressive” due to metric patterns that were “perhaps inspired by Stravinsky or Bartók (or more directly by the non-Western music that had inspired them) (Walser, Running With The Devil, 61).” Additionally, King Crimson—a band noted as being influential by Dream Theater—explicitly cites certain concert music composers as influencing their sound directly. For instance, guitarist Robert Fripp describes King Crimson’s music as an attempt to answer the question “What would Hendrix sound like playing Bartók (Eric Tamm, From King Crimson to Guitar Craft (Boston: Faber and Faber, 1990), 31)?”

mentioned in Chapter 1), the influence is established with a significant amount of clarity. Furthermore, when a band covers another artist’s entire album in lieu of a concert of their own original music, the influence is established to an even greater degree. As noted in Chapter 1, Dream Theater has released recordings of their performances of four complete albums from different bands. It is instructive that the four albums covered are considered hallmarks of heavy metal (Iron Maiden’s *The Number of the Beast*), its subgenre of thrash metal (Metallica’s *Master of Puppets*), and progressive rock (Pink Floyd’s *The Dark Side of the Moon* and Deep Purple’s *Live in Japan*); thus, Dream Theater’s covers of these albums can be interpreted as conscious acts by the band to situate itself somewhere “between” the traditions of heavy metal and progressive rock in the perception of their fans.

**Tribute bands.** Another poietic intertextual practice that has involved Dream Theater is the release of single live albums by Mike Portnoy’s “tribute bands,” which include Yellow Matter Custard (2003, a tribute to The Beatles), Hammer of the Gods (2006, a tribute to Led Zeppelin), Cygnus and the Sea Monsters (2006, a tribute to Rush), and Amazing Journey (2007, a tribute to The Who). Each of these albums consists entirely of covers, and while Portnoy is the sole member of Dream Theater involved with their creation, I still believe that these referenced bands can be said to have influenced Dream Theater’s music—especially since Portnoy headed the creation of the albums, which are only available from his personal website.60

**The “inspiration corner.”** The example of explicit musical reference that is discussed most frequently by fans of Dream Theater is what became known as the “inspiration corner,” a section of the rehearsal studio set up by the band members during the writing sessions for each of their studio albums.61 In the inspiration corner, band members (primarily Portnoy) display albums from other artists that they envision influencing the direction of their compositions for the upcoming release. While Portnoy insists in interviews that fans have over-emphasized the degree of influence that the inspiration corner has on Dream Theater’s compositions, Rudess seems to indicate otherwise:

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61 Despite the common misconception that the band began the “inspiration corner” tradition with *Scenes From A Memory*, Petrucci reveals that it had been in existence since the very first Dream Theater album (Wilson, “Words,” 237).
“[The inspiration corner] was a big Mike [Portnoy] kind of thing. It was like “We’re going to do this album and here’s the inspiration for it. If you don’t like the albums, then that’s too bad”…but for me it’s kind of educational to be in Dream Theater in the sense that I learn about styles, such as finding out about Metallica, Iron Maiden, and Queensrÿche and understanding their chord structures.”

Certainly, the extent to which the albums from the inspiration corner directly influence Dream Theater’s songs is difficult to discern. In some cases, the influence is solely in the choice of instrumentation. For instance, Portnoy declares that the extent of the influence of Galactic Cowboys’ *Space in your Face* album on Dream Theater’s *Six Degrees* was limited to Myung’s decision to use an eight-string bass. In other cases, the influence of the inspiration corner albums can be heard through similarities in musical themes. For example, Portnoy cites Tool’s album *Ænima* as a member of the *Six Degrees* inspiration corner, and the main riff to the track “The Great Debate” is highly similar to Tool’s “Forty-Six & 2” from *Ænima*. Also, the influence of these selected albums can be more pervasive and formally impactful, such as the collection of concept albums cited in Chapter 1 that inspired Dream Theater’s own concept album *Scenes From A Memory*.

**Quotation, allusion, and parody.** More traditional ways in which Dream Theater explicitly expresses its musical influences in its compositions are through the so-called “postmodern” intertextual techniques of quotation, allusion, and parody—each of which are routinely encountered in classic-era progressive rock. While literal musical quotations of other artists’ works are rare in Dream Theater’s studio-recorded music (one example is provided in Chapter 5’s analysis of “Sacrificed Sons”), a type of near-quotation that might be regarded as

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62 Rudess, quoted in Ibid., 238.


64 I make the distinction between studio-recorded music and live music here because Dream Theater quotes (and parodies) other musicians’ works quite often in concert performances. Some examples of literal quotation are captured on Dream Theater’s live albums that have been officially released by the band, including references to Metallica’s “Enter Sandman,” Rimsky-Korsakov’s “Flight of the Bumblebee,” the theme to *The Simpsons*, Leontovych’s “Carol of the Bells,” and Lynyrd Skynyrd’s “Free Bird.”
“thematic recomposition” or “thematic allusion” is extremely common. I consider instances of near-quotiation to be explicit references, particularly in cases where Dream Theater has documented their sources. One example is the bass introduction to Dream Theater’s “Home” from *Scenes From A Memory*, which is also similar to a riff from Tool’s “Forty-Six & 2” from *Ænima*, an album that has been cited by the band as influential. Another example of explicit near-quotiation—and thus of poietic intertextuality—can be seen in the band’s formal outline to “In The Presence of Enemies: Part II,” shown on the video documentary *Chaos in Progress: The Making of Systematic Chaos*. The outline has a formal subsection labeled “Grieg entrance,” and, while no literal quotation can be perceived, general rhythmic and melodic characteristics in the keyboard accompaniment part during this subsection parallel the theme to Grieg’s “In the Hall of the Mountain King.”

While literal quotations of outside musical sources are uncommon in Dream Theater’s studio recorded music, self-quotiations occur more frequently. Middleton notes that self-quotiation has a rich history in progressive rock, and has precedents in more traditional pop/rock music. Instances of thematic self-quotiation are prevalent in the band’s multi-movement works and concept albums, and typically serve either a developmental or associational function (as in a *leitmotif*). Examples include *Scenes From A Memory* (which, as noted in Chapter 1, “recycles” riffs from the *Images and Words* song “Metropolis – Part I: The Miracle and the Sleeper”), “Six Degrees of Inner Turbulence,” and especially the “Twelve-step Suite” discussed earlier in this chapter. However, there are also examples of self-quotiation in Dream Theater’s oeuvre involving unrelated songs—even songs from different albums. One such example is the initial theme from “Wait for Sleep” from *Images and Words*, which is quoted in the next track on the album, “Learning to Live,” as well as in abbreviated form in “Just Let Me Breathe” from *Falling Into Infinity*.

65 Losada’s typology of intertextuality includes a few similar terms for referential techniques, including “recomposition,” and “structural features of earlier compositions…incorporated without actual quotation (Losada, “The Process of Modulation in the Musical Collage”).”
66 Middleton, *Studying Popular Music*, 221-222. Middleton’s mention of The Beatles’ self-quotiation in “A Day in the Life” (which references “Lucy in the Sky with Diamonds”) is noteworthy, as both of these songs come from the *Sgt. Pepper* album, which, as mentioned previously in this chapter, is cited by scholars as having been extremely influential in the formation of the progressive rock sound.
67 French fan Fabian Labonde provides a detailed analysis of the self-quotations and other musical elements in *Scenes From A Memory* on his personal website, which was given praise by Mike Portnoy for its comprehensiveness (Fabien Labonde, “Scenes From A Memory Analysis”; available from http://flabonde.free.fr/DTSFAM.htm: Internet; accessed 20 August 2008).
Another type of poietic intertextuality heard frequently in Dream Theater’s music is overt style allusion, which Middleton cites as a noteworthy feature of classic-era progressive rock. While Dream Theater often alludes to other rock styles in its compositions—for instance, the “arena rock” chorus section of “I Walk Beside You” from the explicitly Coldplay and U2-influenced album *Octavarium*—perhaps the clearest marker of the band’s eclecticism is the frequency with which it alludes to non-rock styles, which often creates moments of drastic style juxtaposition. An example of Dream Theater’s prog-inspired eclecticism—heard through several style allusions to non-traditional genres—is “In the Name of God” from *Train of Thought*, which incorporates a formal section based on a typical samba rhythm and also includes a techno “breakbeat.”

A final type of “postmodern” referential technique heard in Dream Theater’s music that I consider to be explicit is parody. Musical parodies are also relatively rare in Dream Theater’s studio recordings compared to cases of stylistic or thematic allusion, and most involve lighthearted or ironic arrangements of well-known melodies such as children’s songs. Examples include the chromatic—and metric—alteration of “Jingle Bells” toward the end of “Octavarium,” as well as the minor-key rendition of “Battle Hymn of the Republic” sung during the Coda of “In the Name of God.”

**Esthetic intertextuality.** In many instances, Dream Theater’s music serves as an intertext to other styles or compositions in ways that are not explicit, but rather based on my own associations to other musical texts. This is often the case when the intertextual connection is made on the general stylistic level (as in a style allusion), as opposed to the specific opus level

69 Cotner claims that disunity, style juxtaposition, and collage are commonly associated with American progressive rock (Cotner, *Archetypes of Progressiveness in Rock*, 35-39). However, Spicer—whose dissertation also includes an intertextual analysis of Genesis’s early music—claims that The Beatles “were the first to employ [collage] as a consistent feature of their compositional practice (Spicer, *British Pop-Rock Music in the Post-Beatles Era*, 17).”
70 “Breakbeats” are highly syncopated rhythmic figures in simple quadruple meters that typically accentuate a 2+2+3+5+4 subdivision pattern. These rhythms are reminiscent of—and often samples of—the percussion Interludes (or “breaks”) in many funk songs, notably those of James Brown. For a detailed definition of the term “breakbeat” that is supported by musical examples, see Butler, *Unlocking the Groove*, 78-80.
71 Many, if not most, of Dream Theater’s variations of existing musical themes involve metric alterations. Another example is given in my analysis of “Sacrificed Sons” in Chapter 5. Bowman notes that Rush used the same technique in the fifth movement of “La Villa Strangiato” from the album *Hemispheres*, altering the famous theme from Raymond Scott’s jazz piece “Powerhouse” (1937) by changing its meter from an isochronous 4/4 to a non-isochronous 7/8 (Bowman, *Permanent Change*, 158-159).
72 Dream Theater’s parody of “Battle Hymn of the Republic” is seemingly intended to subvert the original song’s meaning, as the lyrical theme of “The Name of God” is the evils of religion. The result is what Middleton calls a “destructive parody” (Middleton, *Studying Popular Music*, 221).
Like most listeners, I tend to relate songs to one another by way of similarities in timbre, harmony, rhythm, meter, and other musical domains. This is certainly the situation with Dream Theater’s music, though I also hear more general correlations involving the totality of the band’s musical style. One general intertextual connection I hear between tonal concert music, progressive rock, and Dream Theater’s music is the use of functional harmonic progressions, which appear far more frequently in Dream Theater’s music than in that of most heavy metal bands. Dream Theater’s use of such progressions parallels their use in the music of progressive rock bands, a practice which has allowed analysts such as Covach and Holm-Hudson to use Roman numeral analysis in their studies of prog compositions unproblematically. One example of a tonal progression in Dream Theater’s music is the Baroque-flavored minor-mode suspension chain in *Train of Thought*’s “Vacant,” which leads to a half cadence in C# minor.

Another general intertextual connection I hear in Dream Theater’s music—one for which I have found no historical corroborations, despite extensive research—is with minimalist music, through the treatment of rhythm and meter. I explore this connection with more detail in Chapters 4 and 5.

**Lyrical Themes**

Holm-Hudson, in the introduction of *Progressive Rock Reconsidered*, cites “fantastic (often mythological or metaphysical) lyrics” as a defining element of the prog style. This idea is expanded in the Prog Archives fanzine, which lists “lyrics that convey such themes as science fiction, fantasy, history, religion, war, and madness” as principal in the genre. Sheinbaum expands the list further, citing the primacy of “lyrics based on mythology, nature, modernism, [and] surrealism.” While these authors give different examples of the typical lyrical themes in progressive rock, each listed theme can be interpreted as representing more general themes of profundity and conflict that resonate with the prog aesthetic—and parallel the general perception of concert music’s expressive power within the prog community. This parallel between the perceived themes of progressive rock and “classical music” is noted by Edward Macan, who claims that the styles share “the same preoccupation with the infinite and otherworldly, the same

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fondness for monumental statement…and the same concern with expressing epic conflicts.”

Examples of fantastical lyrics which express epic conflicts are in abundance in Dream Theater’s music. For instance, as introduced in Chapter 1, the album Systematic Chaos includes songs whose lyrics depict a vampire seductress who feeds on a man jailed by an evil society (“Forsaken”), a guilt-ridden survivor of a drowning incident whose wish to cross into the afterlife and meet the person that saved him is fulfilled (“The Ministry of Lost Souls”), and a man who struggles internally between good and evil (the biblically-themed “In The Presence of Enemies”).

One especially characteristic lyrical theme of progressive rock is mental illness, which is most famously exemplified by Pink Floyd’s concept album The Dark Side of the Moon. Holm-Hudson notes that in particular, the writings and philosophies of British psychologist and activist R. D. Laing regarding mental illness—especially schizophrenia—inspired the lyrics to compositions and albums by Gentle Giant, Pink Floyd, Supertramp, King Crimson, and other well-known progressive rock groups from the 1970s. Dream Theater has a number of compositions featuring “madness” as a lyrical theme, including “Constant Motion” from Systematic Chaos, “Panic Attack” from Octavarium, and the multi-movement suite “A Mind Beside Itself” from Awake. However, the most explicit example from Dream Theater’s oeuvre is the miniature concept album “Six Degrees of Inner Turbulence,” whose individual movements portray specific mental illnesses. For example, the lyrics of the second movement, entitled “About to Crash,” tell the story of a young girl suffering from bipolar disorder, depicting contrasting manic episodes (“she can’t stop pacing, she never felt so alive / her thoughts are racing, set on overdrive”) and fits of depression (“once barely taking a break, now she sleeps the day away”).

Certainly, the employment of lyrical themes such as mental illness is not exclusive to progressive rock bands and their successors, and thus Dream Theater’s use of these themes alone

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77 Petrucci notes in an interview for the release of the music video for “Forsaken” that the song’s lyrics were based on the short story “Phantoms,” written by the Russian author Ivan Turgelev (Blabbermouth.net, “News Archive”). The music video also depicts the vampiress as hailing from a futuristic android society that has enslaved her, which adds a science fiction element to the song and thus creates a stronger parallel to the progressive rock tradition.
78 Holm-Hudson analyzes textual and musical connections to R.D. Laing’s conception of “madness” in King Crimson’s “21st Century Schizoid Man,” Van der Graaf Generator’s “Man-Erg,” and Renaissance’s “A Trip to the Fair” in his presentation “Progressive Rock’s Politics of Experience,” given at the 2009 annual meeting of Music Theory Southeast in Orlando, FL.
does not characterize their music as exhibiting a prog influence. However, the combination of such themes with the other musical elements discussed in this section marks the band’s music as particularly—and, I believe, essentially—“progressive.”

**The Periphery of the Sound: Heavy Metal Elements in Dream Theater’s Music**

While I consider the core of Dream Theater’s sound to be inspired by the progressive rock of the late 1960s and early 1970s, there are many salient features of the band’s music that are typical of heavy metal. Additionally, Dream Theater has written several individual songs that are seemingly devoid of any prog influence and sound quintessentially “metal.” Furthermore, Dream Theater’s members routinely describe the significance of heavy metal in the formation of their collective musical identity in interviews. This section describes some of most frequently-encountered heavy metal traits in Dream Theater’s music, including those described colloquially as “power chords,” “shredding,” and “headbanging.”

**Timbre**

Walser begins his discussion of the musical markers of metal by claiming that timbre often signals genre in music more instantly than any other musical domain, and that “the most important aural sign of heavy metal is the [timbre] of an extremely distorted electric guitar.” He even goes as far as saying that any performance that lacks the distorted guitar timbre is not an example of heavy metal. Walser notes that the transgressive, excessive sound of distortion signifies power—the most prominent theme in heavy metal music—which is something that is especially true in guitar distortion, whose byproduct is compression and thus sustain. Listeners also describe metal’s timbres as—appropriately—“heavy,” and Berger and Fales claim that this “heaviness” is the defining feature of the genre.

Berger and Fales note that the concept of “heaviness” is applied by members of the heavy metal subculture to a variety of timbres, not limited to those created by the distorted six-string.

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79 Walser, *Running With The Devil*, 41.
80 Walser, in order to establish the emphasis on power in the heavy metal subculture, quotes Rob Halford of Judas Priest, who says plainly: “First, heavy metal is power…” He also notes that the names chosen by heavy metal bands typically “evolve power and intensity (Ibid., 1-2).” Bowman agrees with this characterization of metal, repeatedly calling to genre “power-oriented” in his dissertation (Bowman, *Permanent Change*, 5-6).
81 Walser, *Running With The Devil*, 41-43.
82 Harris M. Berger and Cornelia Fales, “‘Heaviness’ in the Perception of Heavy Metal Guitar Timbres.”
83 Ibid.
electric guitar. In Dream Theater’s music, heaviness can be interpreted via range from the detuned, extended-range basses and guitars that are often used by Myung and Petrucci, which have the ability to sound in extremely low, resonant ranges. For example, the simultaneous presence of a six-string bass playing an open, low B string and a seven-string guitar playing an open, low B power chord at the beginning of Awake’s “The Mirror” creates an extremely “heavy” sound that points to the metal genre. Heaviness can also be heard in Dream Theater’s music through LaBrie’s vocal articulations, which are typical of metal vocal articulation and range from what Pieslak calls “a quasi-operatic, vibrato-laden style to unpitched yelling or screaming.” While LaBrie’s vocal timbre is most often associated with the “operatic” style described by Pieslak, there are also examples of unpitched yelling (e.g. the guttural “death growls” in “The Dark Eternal Night” from Systematic Chaos) and unpitched screaming (e.g. the climax of Octavarium’s title track) in Dream Theater’s catalog. Both extremes are discussed by Walser, who notes that these articulations cause timbre to be interpreted as powerful and intense by listeners. The “heaviness” in Portnoy’s drumming also contributes to the band’s sound, and signifies a metal influence. While the sheer loudness of his drum parts contributes to a sense of heaviness, a more important aspect pointing to the heavy metal genre is the resonant timbre of his drum set, particularly when he performs parts involving double bass drumming. One metal signifier that involves this type of drumming is the “blast beat,” which is characterized by a consistent composite rhythm of short durations (typically notated in transcriptions as sixteenth-notes or triplet sixteenth-notes) performed at a fast tempo at an extremely loud dynamic level on multiple drums simultaneously and in alteration. One example of a “blast beat” in Dream Theater’s oeuvre that involves both duple and triple subdivisions

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84 Berger and Fales’s study reports that members of the heavy metal subculture consider the music’s timbres to have become more and more “heavy” since the genre’s inception, and it is instructive that their choice for an extremely heavy sample of music—“Wages of Sin” by the progressive metal band Winter’s Bane—features guitar and bass parts tuned lower than in standard tuning.


86 The term “death growl” came to describe the guttural, percussive vocal articulations common in the death metal subgenre. For more on death growls, see Will York, “Voices from Hell: The Dark, Not-so-dulcet Cookie Monster Vocals of Extreme Metal,” San Francisco Bay Guardian (July 2004); available from http://www.sfbg.com/38/42/art_music_metal.html; Internet; accessed 28 April 2009.

87 Walser, Running With The Devil, 45.

occurs during the climax of the Interlude in the song “The Dark Eternal Night” from Systematic Chaos.

“Power Chords”

An especially representative stylistic element of heavy metal related to the “heaviness” of timbre created by the distorted guitar is the “power chord” (defined by Berger and Fales as “chords composed of a root, fifth, and octave in the lowest octave of the guitar's range”), which is considered to be the most commonly-used harmonic entity in the genre. Walser suggests that “if there is one feature that underpins the coherence of heavy metal as a genre, it is the power chord,” and observes that in the infancy of metal, the power chord was used exclusively by metal bands. He also claims that distortion is actually part of the power chord definition, suggesting that distorted power chords are well-named due to the overtones that are created both above and below the sounding pitches, which result in a full, “powerful” sound. Pieslak attests to the importance of both distortion and power chord sonorities in stylistic classification, observing that “the use of a distorted guitar timbre and/or power chords is frequently the sole determinant used by scholars to qualify the music as metal or as exhibiting a metal influence.”

I believe that the frequency with which one hears distorted power chords in Dream Theater’s music is directly responsible for the band’s classification as a progressive metal band, rather than a metal-influenced prog band. However, there are also other typical “metal” harmonies that characterize Dream Theater’s music, such as those emphasizing non-diatomic, non-resolving tritones and minor seconds. These sonorities are described by Berger as typifying the death metal and thrash metal subgenres in particular, though their use is very common in most heavy metal subgenres. One example of both distorted power chords and tritone/minor second emphasis—as well as detuned and extended-range instruments, growled and “operatic” vocal timbres, and double bass drumming—from Dream Theater’s catalog that possesses an unmistakably intense and powerful sound reminiscent of classic heavy metal is the Verse section of “As I Am” from Train of Thought.

89 Harris M. Berger and Cornelia Fales, “‘Heaviness’ in the Perception of Heavy Metal Guitar Timbres.”
90 Walser, Running With The Devil, 2.
91 Ibid., 43. Berger and Fales’s study confirms Walser’s description of overtones “below” the fundamental—what he calls “resultant tones” in Running With The Devil—but finds that these harmonics are only perceptual events, not true acoustical signals. This is notable, as the “resultant tones” form a major part of the perceived “heaviness” of heavy metal guitar timbres, yet cannot be accounted for in spectrographic analyses.
“Shredding”

Heavy metal’s themes of power and intensity are also manifested in a formal section that typifies heavy metal songs—the guitar solo section. Walser claims that “virtually every heavy metal song features at least one guitar solo,” and that these metal guitar solos serve as “rhetorical outbursts” that mimic the main themes of the genre: freedom, transgression, power, and intensity of experience.\(^94\) Dream Theater’s handling of solo passages, as noted earlier in this chapter, is decidedly “democratic,” and thus is more similar to progressive rock practice than that of heavy metal. However, Petrucci’s solos are more prominently featured in the band’s music than solos on any other instrument, and—more importantly—these guitar solos are very audibly influenced by the heavy metal tradition of “shred guitar” or “shredding.”

Walser describes the tradition of “shredding” in *Running With The Devil* in a section that identifies “the reigning values of metal guitar,” which he describes as including “a conservatory-style fetishization of technique” and speed.\(^95\) The emphasis placed on metal guitar technique is often best understood in the context of solo passages, as they tend to be laden with extended techniques such as two-hand tapping\(^96\) and sweep picking which allow for extremely short rhythmic durations to be performed.\(^97\) These techniques, along with vibrato arm or “whammy-bar” tremolo and “dive bombs,”\(^98\) distorted natural and artificial “pinch” harmonics, pick slides, and tremolo picking comprise the majority of “shred guitar” techniques. Notable guitar “shredders” from the classic period of heavy metal in the 1970s and 1980s include the European “neo-classical” metal performers Yngwie Malmsteen and Uli Jon Roth, as well as Eddie Van Halen (Van Halen), Randy Rhodes (Ozzy Osbourne), Steve Vai (Frank Zappa), and Kirk Hammett (Metallica).

John Petrucci is also considered a guitar “shredder” by fans and critics, and repeatedly receives accolades for his displays of extended techniques in the press, even receiving the distinction as the “Ninth Fastest Shredder of All Time” by *Guitar One* magazine in 2003.\(^99\)

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\(^94\) Walser, *Running With The Devil*, 50-53.

\(^95\) Ibid., 99. Critics of “shredding” tend to disparage the degree of emphasis placed on technique in the tradition, typically arguing that this emphasis interferes with the creation of true musical substance or expression.

\(^96\) Walser notes that two-handed tapping was popularized by guitarist Eddie Van Halen, particularly in his solo piece “Eruption” from Van Halen’s self-titled debut album, which was released in 1978 (Ibid., 64-75).

\(^97\) Ibid., 99.

\(^98\) This technique involves articulating a pitch and gradually slackening the strings of a guitar by pressing down on a whammy-bar, which creates a portamento descent. For a concise description of extended techniques in electric guitar playing, see Ibid., 91.

Petrucci’s solos frequently involve specific techniques associated with “shred guitar,” and many—such as his solo on “The Ytse Jam” from *When Dream and Day Unite*, in which he utilizes two-handed tapping, tremolo picking, and whammy-bar tremolo—incorporate multiple “shred” techniques. However, Petrucci is not the only “shredder” in Dream Theater, as Myung often displays his two-handed tapping and tremolo-plucking ability in his bass parts—something that is uncommon in the music of mainstream heavy metal bands. Notable examples of bass “shredding” include Myung’s solos in the songs “Metropolis Pt. I: The Miracle and the Sleeper” from *Images and Words* and “The Dance of Eternity” from *Scenes From A Memory*.

**Imagery**

The imagery associated with heavy metal typically evokes the primary themes of the genre—power and intensity. Some of the common images in heavy metal are discussed at the outset of this chapter, such as those involving the typical appearance of metal musicians (long hair, denim and leather clothing, menacing scowls, etc.). Figure 3.7 is a screen shot taken of James LaBrie from Dream Theater’s first music video, which was created to support their single “Pull Me Under” from *Images and Words*. Of note in this image is LaBrie’s clothing—including a black leather vest covering a primarily black Napalm Death T-shirt—and especially his long hair, as each of these characteristics are common components of heavy metal fashion.

![Image of James LaBrie from Dream Theater's music video for "Pull Me Under."](image)

**Figure 3.7** James LaBrie in Dream Theater’s music video for “Pull Me Under.”

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100 Black T-shirts featuring the logos of heavy metal bands such as this one are common in the metal subculture.
An associated theme of metal alluded to earlier in this chapter is darkness, which is often communicated through the pervasive use of the color black in lyrics, band names, album titles, images, album covers, and band merchandise. There is even an extreme heavy metal subgenre that is known among those in the metal subculture as “black metal.”

Dream Theater used the color black almost exclusively in the cover for their album *Train of Thought* (see Figure 3.8)—to the extent that reading the liner notes is nearly impossible—paralleling Metallica’s use of the color for their eponymous 1991 release, which became known as “The Black Album.” The musical sounds of *Train of Thought*, supported by this imagery, led to the reception of the recording as Dream Theater’s “classic metal album.”

![Figure 3.8 The album cover to Dream Theater’s *Train of Thought*.](image)

“Headbanging”

Physical gestures made by performers can lend insight into the ways they are perceived or intend to be perceived by fans. For instance, Walser analyzes the “vigorous nodding to the

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beat” called “headbanging” as a gesture typical of heavy metal performers and fans. Dream Theater’s members often engage in headbanging in their live performances, resulting in the perception among fans—or at least the intended perception among fans—that they possess a certain degree of heavy metal authenticity. Noteworthy examples of Dream Theater engaging in “headbanging” can be found in their music videos, whose images shape fans’ perception of the band to an equal or greater degree than their album covers. The music video featuring the most frequent images of “headbanging” in Dream Theater’s history is the video for “Pull Me Under,” which is perhaps due to the greater popularity of heavy metal—and thus the greater visibility of its subculture’s characteristic behaviors—in the early 1990s. However, the recent music video for “Constant Motion” from the album Systematic Chaos also includes many shots of the band members “headbanging” with extremely long hair, despite the fact that heavy metal authenticity is no longer prized in mainstream musical culture.

The Combination of Center and Periphery: Dream Theater’s Compositional Process

Much of Dream Theater’s signature sound can be described in terms of musical elements or traits, which have been reviewed in this chapter and mapped onto the influential genres of progressive rock and heavy metal. However, the ways in which these elements are combined greatly affect the resultant musical “mixture,” and additionally lend insight into the band’s views of its compositions; therefore, it is important to address the Dream Theater’s unique compositional process. Portnoy describes this process in a homemade documentary produced during the recording of Train of Thought in early 2003:

“Basically, the four of us just bounce ideas off of each other and one little thing will spark another and it grows and it continues to grow and everybody will have an idea of how to embellish something or transpose it into different key or a time signature and the next thing you know, you’ll have this one little idea [that] has blown up into this big twelve-minute epic, and that’s the way Dream Theater music is written.”

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102 Walser, Running With The Devil, 180. Ironically, one of the most famous demonstrations of “headbanging” in popular culture comes from a scene in the 1992 film Wayne’s World, in which the main characters are “headbanging” to Queen’s overly progressive rock-inspired song “Bohemian Rhapsody.”
103 This documentary, titled The Making of Train of Thought, is included as “bonus material” on the Compact Disc release of Train of Thought, and is unlocked by inserting the CD into a computer’s CD-ROM drive and visiting the band’s official website, www.dreamtheater.net.
One important aspect of this description is its emphasis on thematic development, which is implied by Portnoy as being a central aspect of the band’s compositional style. Another striking aspect is his concept of “transposing” a theme’s “time signature.” I discuss Portnoy’s implied term “time signature transposition” in Chapter 4.

Perhaps the most important element of Dream Theater’s compositional process that is alluded to in this quotation is that of group composition—often referred to colloquially by rock musicians as “jamming.” Dream Theater’s members routinely highlight “jamming” as the band’s main method of composition in interviews, which is important for three reasons. First, the practice of creating music while performing it in real time requires improvisational skills. Second, this process involves composing with musical instruments in hand, and as such, many of the resultant musical riffs are based on the potentialities and limitations of these instruments; for example, the guitar and bass riffs in Dream Theater’s music typically feature economical hand positions and a lack of frequent position shifts. Third, the egalitarian nature of “jamming” to create songs is atypical of most rock bands, which typically have a designated leader or “frontman.”

However, Dream Theater’s “group composition” is not always as “democratic” as Portnoy seems to indicate. Many accounts—such as band member interviews in Wilson’s Lifting Shadows—emphasize the roles of Portnoy and Petrucci as co-leaders in Dream Theater’s writing process that have a “final say” in compositional decisions. Furthermore, Portnoy’s description of “the four of us…[bouncing] ideas off of each other” includes the four instrumentalists (Myung, Rudess, Petrucci, and Portnoy), yet omits LaBrie. This is not an unintentional error by Portnoy; for the majority of Dream Theater’s history, LaBrie has not been invited into the rehearsal studio, hasn’t composed his own vocal melodies, and has rarely penned lyrics for the band’s songs. Furthermore, until recently, LaBrie entered the recording studio only after the instrumental parts had already been recorded and mastered—he simply sang atop a “finished product” like a hired studio musician.104

The working relationship between LaBrie and the rest of the band has little to do with personal conflicts; rather, it is directly related to the instrumentalists’ views of texted music. Portnoy repeatedly emphasizes on his personal website that the lyrics to Dream Theater’s songs

are written after the “music” has already been finished.\textsuperscript{105} As such, each of the band’s songs begins with a working title—many of which are vulgar—that is eventually replaced by a title suggested by the lyrics. Portnoy also notes that the task of writing lyrics is usually divided up among the band members.\textsuperscript{106} This process speaks to the general disdainful attitude of the band’s instrumentalists towards texted music—it is as if they would rather not have a vocalist in their band or lyrics in their compositions, but feel obligated to include them in order to remain “authentic” (or marketable). Thus, in my analyses of Dream Theater’s songs in Chapters 4 and 5, I refrain from addressing many text/music relationships, as the text is not typically considered until after the instrumental parts are composed. However, some passages of texted music in the band’s catalog do seem remarkably mimetic (for instance, the textual and rhythmic relationships in “Constant Motion” described in Chapter 5). In these cases, it is possible to consider the possibility of a kind of “reverse text painting,” in which the character of a song’s instrumental parts suggests a lyrical theme.

A final notable aspect of Dream Theater’s compositional process involves music notation. While the classically-trained Rudess typically notates his own parts in traditional staff notation, the rest of the band members usually create idiosyncratic formal outlines to guide their performances. These outlines sometimes include excerpts of traditional notation, though they ordinarily feature simple prose descriptions of a piece’s key or centricity, style (which often involves references to a specific band or composer), mood, and meter. The meter of a given section of music is often indicated by its cardinality with a single numeral (e.g. “6,5,6,5” for alternating measures of sextuple and quintuple meter), though bar lines are also included to designate hypermetrical divisions. Figure 3.9 is a screen shot from \textit{The Making of Train of Thought} showing the working “score” of the song that would later be titled “Stream of Consciousness”\textsuperscript{107}

\textsuperscript{106} Ibid.
\textsuperscript{107} Dream Theater, \textit{The Making of Train of Thought}. LaBrie is actually heard calling the formal outline the song’s “score” in the video.
Conclusion

The stylistic traits discussed in this chapter figure greatly into Dream Theater’s overall sound. However, these traits vary in frequency and salience within specific songs and albums from the band’s catalog. Typically, progressive rock elements outweigh those of heavy metal, creating an overall sound that can be described as having a progressive rock “center” and a heavy metal “periphery.” Indeed, the most salient aspect of Dream Theater’s sound is rhythmic and metric complexity, a progressive rock trait that figured heavily in the creation of progressive metal music. Chapter 4 discusses Dream Theater’s treatment of rhythm and meter with more detail.

Figure 3.9 The “score” to “Stream of Consciousness” from Dream Theater’s *Train of Thought*. 
Chapter 3 introduced my conception of Dream Theater’s unique sound as possessing a structural center of progressive rock bounded by a periphery of heavy metal, and cited numerous salient traits in the band’s music pointing to these two parent styles. However, I have chosen to give rhythmic and metric complexity—a “progressive” element that I believe to be the most characteristic trait of Dream Theater’s music—its own chapter, in order to more fully examine the musical circumstances surrounding the stimulating temporal experiences I routinely enjoy when listening to the band’s style of music.

Bowman, in his attempt to characterize Rush’s late-'70s musical period as prog-influenced in his dissertation, statistically analyzes some characteristically “progressive” musical traits in the band’s music (such as high vocal tessitura and the presence of instrumental unison melodies), and notes that the most “significant” correlation involves meter: Rush used asymmetrical meter in 16% of their music during the “progressive” phase, while the music of later phases included only 3%. Later in the dissertation, Bowman observes DJ Z-Trip’s “isochronization” of the asymmetrical meter in the instrumental section to Rush’s “Tom Sawyer” in his 1998 “remix” of the hit, which thereby “[erased] any vestiges of progressive rock.” Both of these observations point to the perception of asymmetrical meter as a marker of “progressiveness” among rock listeners. However, while asymmetrical meters are perceived in progressive rock music more frequently than in traditional rock music, I believe that Bowman oversimplifies the situation. It is not solely asymmetrical meter that characterizes prog (and by extension, prog metal), but rather the more general element of rhythmic and metric complexity.

Dream Theater’s music is routinely described as “progressive” by fans and journalists, who typically emphasize the salience of rhythmic and metric complexity in the band’s music in particular. Members of the band characterize their music in this way as well; as former vocalist Charlie Dominici explains in an interview with RIP magazine, “Dream Theater has a progressive...

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1 Bowman notes that for musicians and fans, rhythmic and metric complexity serve as “primary indications of [the] technique-oriented aesthetic” that is crucial to progressive rock—and, by extension, to progressive metal (Bowman, *Permanent Change*, 98).
2 Ibid., 46-49.
3 Ibid., 184.
edge and lots of time changes like Rush.”

Dominici’s highlighting of “time changes” in his description of Dream Theater’s sound reflects the band members’ focus on the domains of rhythm and meter, which is something that is also demonstrated by the band’s “scores.” As discussed in Chapter 3, these “scores” typically include a general formal outline with sections labeled by key, style, expressive character, and meter. However, some “scores” only label sections according to a single prominent domain, eschewing any other information; most frequently, this prominent domain is meter. One example of this type of shorthand score is produced in Example 4.1, a screen shot of the formal outline to “In the Presence of Enemies Pt. I” shown in the DVD documentary Chaos in Progress. In this outline, one section is labeled simply as “13 groove,” denoting the section’s meter.

Figure 4.1 An excerpt of the “score” to Dream Theater’s “In the Presence of Enemies Pt. I.”

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5 The title “The Pumpkin King” was the song’s working title prior to the insertion of lyrics. As noted in Chapter 3, Dream Theater typically uses working titles for its songs, and lyrics are added later in the writing process.
6 I hear this section in alternating measures of seven and six rather than consistent measures of thirteen; this is due to the relatively slow tempo and the strong accent on the eighth beat of the pattern, which coincides with a repetition of thematic material from the beginning of the pattern. Also of note in this example is the section labeled “Rush riff,” which corresponds to a passage featuring several meter changes.
Labeling formal sections in this manner demonstrates the band’s consideration of meter as a primary musical element, and speaks to the band’s prog rock aesthetic. An even more telling way in which Dream Theater demonstrates its “progressiveness” is its use of the domains of rhythm and meter for the creation of musical meaning. The most explicit cases from Dream Theater’s oeuvre involving rhythmic and metrical signification are the constant meter shifts that support the theme of “Constant Motion” (discussed in detail in Chapter 5) and Portnoy’s use of Morse code to rhythmically spell a message into “In the Name of God” from *Train of Thought.*

This chapter delves into the most commonly-encountered “progressive” rhythmic and metrical phenomena in Dream Theater’s music, specifically those that provide me with complex experiences of temporality. I have divided these phenomena into two large categories: complexity involving direct relationships between meter and motive, and complexity independent of motivic transformation. This chapter’s presentation of the sections and subsections discussing each of these categories is ordered by the frequency with which I perceive the phenomena they describe; thus, motivically-related metrical expansion is most frequently heard, whereas metrical reinterpretation is relatively rare. I have included examples from every studio album Dream Theater has released to date, in order to demonstrate the band’s stylistic consistency throughout its twenty-four year history. The majority of the selected examples are drawn from instrumental Introduction, Link, Conclusion, and—especially—Interlude sections of compositions, illustrating the typical formal locations of rhythmic and metrical complexity in Dream Theater’s music. However, texted Verse sections are also discussed, as the band does not exclusively confine complexity to instrumental sections of music.

**Complexity Resulting from Direct Relationships between Meter and Motive**

Wallace Berry noted that in “recent music,” there is “an increased fragmentation of metric structure resulting from increased tendencies of the motivic surface to relate to and

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7 The message—a Portnoy catchphrase that is too vulgar to print—is transliterated by Portnoy into rhythmic figures on his drum kit from 5:51 to 6:07 in the song (for more information, see Faq.dtnorway.com, “Train of Thought”; available from http://faq.dtnorway.com/category/22; Internet; accessed 10 May 2009). Dream Theater’s use of Morse code is probably directly influenced by Rush. Bowman notes that Rush’s song “YYZ” includes a transliterated rhythmic figure that is based on the Morse code for the radio call letters (YYZ) of Toronto’s Pearson International Airport (Bowman, *Permanent Change*, 90).

8 As noted in Chapter 3, I do not discuss Dream Theater’s 2009 album *Black Clouds and Silver Linings*, as it was released at the end of the writing process for this project.
condition meter and grouping.” 9 While Berry refers ambiguously to “recent music” without qualification, his discussion proceeds to analyses of mid-twentieth-century concert music. However, Dream Theater’s progressive metal music is also a prime example of recent music featuring direct motivic and metrical relationships, as most of the meter changes heard in the band’s music accompany altered motivic or thematic restatements. Berry claims that motives condition meter in these contexts; however, there is no objective conclusion one can reach about the true transformational catalyst, apart from one derived from historical evidence from the composer that lends insight into how he or she considers the situation.

One could also suggest that composers use meter itself as a motive, and transform motives in an appropriate way to “fit inside the bar line.” 10 Holm-Hudson, in his analysis of Emerson, Lake and Palmer’s “Trilogy,” seems to posit that the band used meter motivically, altering pitch-and-rhythm themes in order to adhere to developmentally-functioning metric transformations: “…most of the changes [to the opening theme of “Trilogy”] involve rhythmic variations (to fit the different meters of the various sections).” 11

While I have not found convincing evidence regarding Dream Theater’s conception of this chicken/egg problem, Portnoy suggests in an interview that the band considers meter to be primary: “we’d be writing something—and we work together when we write the music—and someone will say “check this out”…then somebody else would say “let’s try to twist that and let’s make that three-four and then let’s go to the Chorus.” 12 Assuming “this” and “that” refer to a thematic idea, it would seem that the band uses meter as an arranging technique—“twisting” riffs rhythmically and/or melodically in order to fit prior conceptions of grouping. Another insightful comment from Portnoy regarding developmentally-functioning meter changes appears in the documentary The Making of Train of Thought, in which the drummer discusses “transposing” a riff into a different “time signature,” in a manner similar to transposing a riff into a different key. 13 Both types of “transpositions” involve a riff’s initial state being subordinate to its goal state; thus, one could interpret Portnoy’s comments as supporting the argument that Dream Theater uses meter motivically, with motive being conditioned by meter. However, I

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9 Berry, Structural Functions in Music, 408.
10 Berry even uses the term “motivic meter” in Structural Functions in Music, though he does so in passing without qualification (Ibid., 397).
12 Imhotep, “Dream Theater- A New Era Begins.”
13 Dream Theater, The Making of Train of Thought. Portnoy’s full quotation is given in Chapter 3.
remain unconvinced of this; thus, I describe situations involving direct motivic and metrical relationships in a neutral manner in my analyses (e.g. “metrical expansion involving augmentation” rather than “metrical expansion resulting from augmentation” or “metrical expansion resulting in augmentation”).

**Metrical Expansion**

The most common type of rhythmic and metric complexity in Dream Theater’s music that involves exact relationships between meter and motive is expansion. Metrical expansion in the band’s music typically incorporates motivic or thematic augmentation, though it often accompanies instances of addition and repetition. Each of these three techniques is routinely encountered in Dream Theater’s characteristic long-range metrical patterns of expansion, which I label as additive processes.

**Augmentation.** Dream Theater frequently uses augmentation to vary the restatement of a riff. Most commonly, the riff’s final note or group of notes—its “tail”—is rhythmically augmented, resulting in an extended (or temporarily “frozen”) upbeat leading into the next measure of music. The feeling of an extended upbeat is heightened when the use of augmentation coincides with a metrical expansion; for, while the resultant change in meter is initially surprising, the listener can retrospectively hear the expansion as lingering on—and strengthening—the upbeat, which results in an increased sense of arrival at the subsequent downbeat. This is especially the case when the initial riff is presented in mixed and/or non-isochronous meter, and its augmented “tail” is heard in an isochronous meter.

One example of this situation from Dream Theater’s catalog can be observed in the Conclusion section of “Solitary Shell,” the Peter Gabriel-inspired sixth movement of “Six Degrees of Inner Turbulence” from the album of the same name. Beginning at 5:35, a variation on the previously-sounding accompaniment to Rudess’s keyboard theme is presented as a melodic figure in the guitar and bass, and is doubled at the octave. The initial two-bar riff, which outlines a D Lydian collection, is in mixed meter, which I have notated as a measure of 6/8 followed by a measure of 5/8 (see Figure 4.2).  

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14 This riff, like many of Dream Theater’s riffs, is composed of two related one-bar sub-thematic ideas, both of which begin with the same motive. However, I hear the two-bar unit as a complete idea; thus, I label it as the “riff” instead of the one-bar unit.
Figure 4.2 Augmentation and metrical expansion in Dream Theater’s “Solitary Shell,” 5:35–5:41.

The subsequent iteration of the riff is altered slightly, with the final A3 held for an extra eighth note in duration, creating the feeling of a “frozen” upbeat leading into the next measure. The “payoff” of the following downbeat is amplified by the accompanying metrical expansion, which eliminates the abruptness of the second bar’s non-isochronous grouping and preserves the riff’s prominent dotted-quarter pulse stream.

A second example of concurrent metrical expansion and augmentation in Dream Theater’s oeuvre that involves the extension of a thematic unit’s “tail” comes from yet another multi-movement composition, “A Change of Seasons.” The syncopated main riff of the Introduction section from the first movement, “The Crimson Sunrise,” enters forcefully in octaves in the distorted seven-string guitar, six-string bass, and keyboard parts at 1:26. This theme, which is primarily composed of alternating open-string B naturals and a descending figure clearly outlining the B Aeolian scale, sounds in an isochronous septuple meter, which I have notated as 7/4 (see Figure 4.3).15

15 The only deviation from the B Aeolian collection is the accented F3 at the very end of the riff, which forms a “flattened” fifth above the centric pitch-class. This particular non-resolving non-diatonic scale-degree, as noted in Chapter 3, is emphasized in heavy metal genres, and to me characterizes this riff as particularly metal-influenced.
Just as in the “Solitary Shell” excerpt, this riff comprises two related one-bar sub-thematic ideas that can be heard as call and response gestures. The augmentation in the power chord-harmonized restatement of the riff—which in this case elongates the final eighth note of the first subtheme—once again results in an extended upbeat that can be retrospectively heard as
strengthening the following downbeat. However, while the augmentation-related metrical expansion in the excerpt from “Solitary Shell” involved an “isochronization” of an asymmetrical meter, this passage is isochronous throughout. Nonetheless, the thematic and metrical extension in this example does yield a similar feeling of “normalization,” as the septuple meter is temporarily changed to a “pure” duple grouping\(^\text{16}\) that preserves a greater number of salient pulse streams.\(^{17}\) This feeling of “normalization” in the first bar of the restatement is aided by the backbeat played by Portnoy in a “half-time feel,”\(^{18}\) which creates a more consistent, typical rock groove and groups the syncopated eighth note rhythms as subdivisions in a common diatonic 3+3+3+3+4 pattern.\(^{19}\) Portnoy’s continuation of this half-time duple feel throughout the majority of the following 7/4 bar provides the listener with more of a sense of continuity than his irregular accents during the initial presentation of the riff; as such, I hear the expanded thematic restatement as being relatively stable, despite its mixed meter.

**Addition.** Another technique Dream Theater frequently employs in creating expansion via direct motivic and metrical relationships is addition. Instances involving addition and metrical expansion in the band’s music do not often result in feelings of stability or continuity—indeed they tend to disrupt these feelings, despite motivic similarities—and can be further categorized into two primary groups: expansion with terminal addition, and expansion with intermediate addition. A third category, expansion with initial addition, can also be

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\(^{16}\) Butler, following Cohn, notes that pure spans are derived from a single integer and are metrically stable, whereas mixed spans are derived from multiple integers and are more likely to present metrical ambiguities (Butler, *Unlocking the Groove*, 81). The primary rhythmic levels of the 8/4 measure from this example are all based on a power of the number two; thus, this measure is a pure duple span. Likewise, the primary rhythmic levels of a normative 9/8 measure are all based on the number three and create a pure triple span.

\(^{17}\) In Figure 4.3, I use parentheses to indicate that a pulse stream is temporarily deactivated, whereas the symbol “X” is used when given pulse stream is discontinued or undermined. Not all of the pulse streams I perceive in the example result from the riff itself; some are articulated by the drum part (such as the quarter note pulse).

\(^{18}\) The term “half-time feel” is typically used in popular music to describe situations in which the durations played by a group’s rhythm section are augmented such that their projected tempo is half that of the rest of the ensemble. However, since the rhythm section typically functions in establishing meter and tempo in popular music, the perceived result of a change to a “half-time feel” is often a slowing of overall pulse; thus, the material performed by non-rhythm section members sounds diminuted despite not being altered—beats sound as divisions, divisions sound as subdivisions, etc.. The half-time feel backbeat in quadruple meter—wherein the snare drum accent is heard on the third beat of every measure in the original tempo—is very common in rock music, and is essentially the case with this example, though I have chosen to notate the first measure of the thematic restatement in 8/4 to clearly show my interpretation of it as an expansion of the initial riff.

\(^{19}\) In this example, both the 3+3+3+3+2 pattern of the of the 7/4 measures’ eighth-notes—which sound as beat divisions—and the 3+3+3+3+4 pattern of the 8/4 measure’s eighth-notes—which sound as subdivisions due to the half-time feel—are diatonic; however, the latter grouping is far more common in rock music, and thus contributes to my interpretation of the third notated measure as a “normalization.”
hypothesized; however, I have not come across any examples of this type in Dream Theater’s music.  

By far the most common type of addition-related metrical expansion in the band’s music involves terminal addition—that is, a note or group of notes added to a riff’s “tail.” One noteworthy example of this type can be heard in the Conclusion section of “The Dance of Eternity” from the concept album Scenes From a Memory (see Figure 4.4).

![Figure 4.4](image-url)  

Figure 4.4 Addition and metrical expansion in Dream Theater’s “The Dance of Eternity,” 5:56-6:07.

20 All three of these concepts—initial, intermediate, and terminal addition—can be related as subtypes of “internal” addition; that is, they denote situations in which an inner part of an initial theme is altered “from within.” “External” addition is discussed later in this chapter, and describes instances in which addition occurs “outside” of the given theme, frequently involving the addition of new material.

21 Accordingly, the excerpts of “Solitary Shell” and “A Change of Seasons” discussed earlier in this section can be said to exemplify expansion and terminal augmentation.
At the beginning of the Conclusion, the band performs a two-bar, B Lydian-outlining melody that is doubled at the octave and accents an isochronous compound duple pattern that I have notated as 6/8 meter. The third and fourth bars feature a diatonic transposition of the melody up a step to C#, resulting in a feeling of both tonal and metric continuity—the key of F# becomes clear, the 6/8 feel is reinforced, and a normative four-bar hypermeasure takes shape. However, the end of the hypermeasure is expanded—two “extra” sixteenth-notes are added to the transposed theme’s tail—and metric continuity is eliminated. The brevity and accentual weakness of the added sixteenths make the situation even more surprising, as they do not support the reinterpretation of the meter of the fourth bar as a well-formed, maximally-even 7/8 (3+2+2). Rather, the additional sixteenths destroy any semblance of evenness, and result in the perception of an extremely asymmetrical (3+3+1) grouping.

**Figure 4.5** Transformation to an uneven non-isochronous meter in the Conclusion of Dream Theater’s “The Dance of Eternity,” 5:56-6:07.
Figure 4.5 depicts the thematic and metrical transformation with a London-style diagram illustrating how the addition-related expansion yields this perception of a 3+3+1 grouping rather than a 3+2+2 grouping. Here, I represent the transformation from the previously-perceived isochronous compound duple meter to the non-isochronous triple meter with the “extra” beat subdivisions—which are thematically unrelated and accentually weak—added outside the metric cycle, which communicates my resultant hearing of the meter as a kind of “6+1/8” rather than a true “7/8.”

The return to both 6/8 meter and the initial motivic material in the fifth measure reinstate the experience of continuity for the listener. However, the harmonic stability of the previous section is thwarted by the transposition of the melody to A Lydian, which undermines the projected key of F#. Also, the subsequent move to F# Lydian in the seventh bar sounds nothing like an arrival due to the change in harmonic collection (which now includes a B# instead of a B-natural), and eliminates the overall feeling of tonality hinted at in the outset of the section. Thus, I hear the Conclusion’s center—which includes the fourth and fifth measures—as generally subverting the section’s projected goals; to me, this creates interest in an otherwise repetitive musical environment.

Another common type of addition-related metrical expansion in the band’s music involves intermediate addition, wherein a note or group of notes is inserted into the middle of a riff. Figure 4.6 provides an example of this phenomenon from the end of the extended Interlude section of “The Dark Eternal Night” from Systematic Chaos. I hear this subsection as being particularly “organic,” as a single bar of material is repeated and transformed to generate twelve measures of music. The initial bar includes two main riffs: the heavily-accentuated primary riff in the guitar, bass, and drum parts, and the sweeping secondary riff in the keyboard part. Both riffs could be heard and notated in an isochronous 5/8 meter with syncopation; however, the clarity of the mutually-accented pulses leads me to hear a non-isochronous 2+2+3+3 grouping that becomes reinforced in the following measure as the eighth note pulse stream is gradually obscured. While the melodic transposition and alteration of the strange minor/octatonic pitch material are noteworthy elements of the altered restatements of this riff, the most salient and complex aspect of the short subsection is the metrical expansion to a non-isochronous 2+2+3+2+2+2 pattern in the even-numbered bars, which is directly related to intermediate
motivec additions (which I have pointed out in Figure 4.6).\textsuperscript{22} This relationship can be shown more clearly by expressing the even-numbered measures’ grouping as 2+2+3[+2+2]+(3-1), with the bracketed portion representing the added beats and the parenthetical portion representing the dimunished final duration.

\textbf{Figure 4.6} Addition and metrical expansion in Dream Theater’s “The Dark Eternal Night,” 5:20-5:40.

\textsuperscript{22} My hearing of these “extra” notes as motivically-related additions is somewhat problematic, as they are not always grouped adjacent to one another and vary in position between the voices. Additionally, the final rhythmic value in the even-numbered bars is shortened to an eighth note, which weakens the correlation with the odd-numbered bars slightly. However, the restatements always begin with the same rhythm and general contour (if not the same pitches), and end with very similar pitch and rhythm material, leading me to hear the relationship quite clearly.
The Interlude to “The Dark Eternal Night” continues after this subsection with an undulating, transitional melodic gesture that is harmonized in parallel tritones and possesses a less-defined, non-isochronous accessional pattern. As such, I hear the subsection as providing a significant degree of coherence and continuity in context, despite its complexity.

Repetition. Metrical expansion also coincides with instances of motivic repetition in Dream Theater’s music quite often, though with less frequency than cases of augmentation or addition. As is the situation with these previously-discussed phenomena, repetition-related expansions are usually located in terminal and intermediate riff positions in the band’s music.

The most common position for motivic repetition and metrical expansion in Dream Theater’s music is the “tail” of a theme. While all of the terminal expansions I have discussed so far in this chapter serve to create coherent variation, the band’s use of terminal repetition—which is typically situated at a hypermetric boundary—also engenders a unique experience of temporality. On the one hand, the experience is similar to that of terminal augmentation (as in the “Solitary Shell” example), in that the final stage of the metrical cycle is emphasized, creating a more definitive sense of arrival on the subsequent downbeat. One the other hand, the experience is distinct, in that it involves the perception of a repeated or “double” upbeat: this often makes me feel as if I have been “knocked back” slightly in time.\(^{23}\)

One example from Dream Theater’s oeuvre that elicits such a response is the beginning of the Conclusion section to “Home” from Scenes From A Memory. Several musical elements hint at the progressive rock style throughout this song (especially the clichéd eclecticism of the fifth-mode harmonic minor scale from the song’s main riffs), though I perceive the influence most clearly in the Conclusion via juxtapositions of tempo, timbre and meter, as well as metrical complexity. Whereas the previous section uses traditional rock instrumentation and sounds in an isochronous quadruple meter at a medium tempo, the Conclusion drastically changes to a faster tempo, accents a non-isochronous triple meter (which I have notated as 7/8 with a 2+2+3 grouping), and uses electronically-generated tabla and sitar sounds, which lend an overtly (and stereotypically) “exotic” tinge to the heavy metal sounds of the six-string electric bass, drum set, and distorted, detuned guitar. This radical discontinuity combines with the motivically-related

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\(^{23}\) Indeed, instances of terminal repetition-related expansion wherein the final motive is repeated without any alteration can sound as if the recording has “skipped.”
expansion of the hypermetrical upbeat in the fourth bar of the section (shown in Figure 4.7) to create a very surprising temporal experience that I hear as clearly prog-influenced.

![Conclusion](image)

The upbeat expansion—which results in a surface-level change from the non-isochronous 7/8 meter to an isochronous 4/4—involves a transposed repetition of the motivic “tail” of the keyboard’s initial riff, which itself is an inverted restatement of motivic “tail” of the first bar’s subthematic unit. This terminal repetition creates a déjà vu-like double upbeat, which, combined with the doubling of the transposed motive at the unison and octave (by the guitar and bass, respectively), points more emphatically toward the downbeat of the next subsection (a full-textured restatement of the first hypermeasure).

Dream Theater’s catalog also includes several instances of developmentally-functioning metrical expansion related to intermediate motivic repetition. One such example is the riff to the
third Verse section of “The Great Debate” from *Six Degrees*, which is a varied return of the material from the previous Verse (see Figure 4.8).\(^{24}\)

![Figure 4.8](image-url) A comparison of guitar riffs in “The Great Debate,” Verses 2 and 3 (4:27-4:46 and 5:10-5:33).

In the second Verse, the guitar riff (which implies an E Phrygian collection and is doubled an octave lower by the bass) accentuates a non-isochronous 3+3+3+2+2 pattern that is reinforced by both the drum and vocal parts. This pattern is altered in the third Verse, as a repetition of the falling-second/falling-seventh motive is added to the interior of the riff. The resultant pattern of sixteen pulses (which I have notated as eighth notes) is grouped as

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\(^{24}\) As mentioned in Chapter 3, “The Great Debate” is explicitly influenced by Tool’s 1996 song “Forty-Six & 2.” The riff to the Introduction and first Verse section of “The Great Debate” bears a striking resemblance to the Interlude riff from “Forty-Six & 2,” with similarities in rhythm, melody, and timbre. The only significant difference between the two riffs is metric—whereas Tool’s riff maintained a constant 2+2+3 pattern, Dream Theater’s riff alternates between 2+2+3 and 2+3+2 groupings. The riffs to Verses 2 and 3 of “The Great Debate” can be heard as thematic and metrical transformations of Verse 1’s riff (and thus of Tool’s riff); however, the relationship is not extremely clear. Thus, I have chosen to focus on the unambiguous relationship between the material of the second and third Verses.
3+3+3+[+3]+2+2, which forms a diatonic rhythmic pattern that sounds as a syncopation above the drum part. As in the “A Change of Seasons” example, Portnoy slows down the pulse in the expanded restatement of the riff by performing a half-time feel in quadruple meter, which groups the eighth notes as subdivisions rather than divisions. This “isochronization” (shown in Figure 4.9) combines with the slowing of the tactus to create a more relaxed experience in the third Verse section, as well as a more seamless transition into the subsequent Chorus section, which is also in quadruple meter.

![Initial grouping](image1)

![Themmetrical transformation](image2)

![Resultant grouping](image3)

Figure 4.9 A London-style diagram of the metrical transformation and intermediate repetition in “The Great Debate.”

**Additive Process.** An important stylistic characteristic of progressive metal is the use of systematic long-range metrical processes. Bowman describes the artifice of such patterns as “metrical constructedness,” which he notes is typical of progressive hard rock and metal. In Dream Theater’s music, the most common type of long-range metrical construction involves additive process. In this way, I consider the band’s music to be intertextual with the early

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25 For clarity of comparison, I have notated the half-time feel of the third Verse in 4/2, which, though it is an uncommon time signature in rock transcriptions, preserves the eighth note presentation of the riffs.  
26 Bowman, “Let Them All Make Their Own Music,” 213. Math metal also makes use of long-range metrical patterns, which may have influenced Pieslak’s decision to create the subgenre label “progressive/math metal” in his article “Re-casting Metal.”
minimalist music of Reich, Glass, Rzewski, and others; however, as I have noted in Chapter 3, I have yet to find historical evidence supporting direct influence. The most important difference between the additive structures in Dream Theater’s music and those of the minimalists is that they are unambiguously metrical—they typically possess clearly-articulated orienting accents that generate feelings of strong and weak beats. Also aiding in the perception of the band’s additive processes as truly metrical is the relatively long duration of the average rhythmic level undergoing expansion. Whereas many additive minimalist works feature prime units of expansion that are difficult to hear as measures due to their brevity (for instance, the initial five-pulse grouping of Philip Glass’s *Two Pages* (Part I) lasts for about .8 seconds, sounding more like a beat undergoing expansion than a bar), Dream Theater’s works usually involve the systematic expansion of larger units that are readily interpreted as being on metrical, hyperbeat, and hypermetrical levels. The result of the metrical nature of the band’s additive processes is an altogether different experience of time than with those of the minimalists. Whereas minimalist additive processes are often described as “static” or “non-teleological” and invoke a “vertical” sensation of time, Dream Theater’s tropes of these structures—which do not usually eliminate the perception of normative four-bar hypermetrical phrase groupings—involve clear goal-directedness and thus linearity.

While the term “additive process” seems to imply the primacy of motivic or thematic addition in its formation, Dream Theater’s additive patterns—like those of the early minimalists—also involve the techniques of augmentation and repetition to create long-range expansion. There are a few examples of additive process using addition in Dream Theater’s

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27 For example, I hear particular similarities between Dream Theater’s additive processes and those of Glass’s “Two Pages,” Rzewski’s “Les Moutons de Panurge” (an additive piece cited by Kramer as an example of vertical temporality), and, especially, Andriessen’s “Hoketus.”

28 Cateforis argues for an intertextual connection between the rhythmic practices of minimalism and math rock—a style whose treatment of meter is, as I have discussed in Chapter 2, quite similar to that of progressive metal (Cateforis, “How Alternative Turned Progressive,” 249).


30 Cohn rejects Kramer’s idea of timelessness or “verticality” within process-derived minimalist works, which require time to unfold (Cohn, “Transpositional Combination of Beat-Class Sets in Steve Reich’s Phase-Shifting Music.” He claims that music which progresses to a state of maximum saturation (like many of Reich’s phasing pieces) possesses order, motion, progression, and climax—thus, it supports the perception of linear time. Nevertheless, I hear Dream Theater’s music as more clearly linear than minimalist music, as it involves progression toward goals on multiple levels (i.e. that of the measure, hypermeasure, formal section, etc.).

31 For instance, York notes Glass’s use of dual processes of addition and repetition in the patterned expansions of *Two Pages* (Ibid., 60-80).
oeuvre, however, including the linear expansion heard during the solo section to “The Ytse Jam (see Figure 4.10).”

Figure 4.10 Linear additive process in Dream Theater’s “The Ytse Jam,” 2:46-3:46.

In this example, the initial unit serving as the palette for expansion is a four-bar riff comprising a single hypermeasure in quadruple meter. This initial riff is overtly metal-influenced, containing heavily-distorted power chords, “galloping” palm-muted rhythms reminiscent of Metallica and other thrash metal bands, and harmonic emphasis on the lowered-second and lowered-fifth scale degrees, which outline the tritone-accentuating Locrian mode. The systematic metrical expansion of this riff, on the other hand, points to a progressive rock influence and creates an intertextual connection to minimalist music.

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The title of this song pays homage to the band’s initial name, as “ytsejam” is the retrograde of “majesty.”

The riff accompanies solos by the guitar and bass (respectively) that are also metal-influenced, featuring typical “shred guitar” techniques such as two-handed tapping, tremolo picking/plucking, and squealing glissandi. Additionally, the keyboard solo is fashioned like a metal guitar solo, and includes heavy doses of portamento to create shrieking guitar-like sounds.
The restatement of the initial riff during the bombastic guitar solo features changes in centricity and rhythm (especially the lack of syncopation in the beginning of the first and third bars); however, the most salient difference is metrical—concurrent thematic addition and metrical expansion appear at the end of the hypermeasure, and the fourth bar of the riff is changed to quintuple meter. While this terminal addition-related metrical extension is indeed surprising, it does nothing to suggest a minimalist influence, and instead invokes the progressive rock style. However, the two added beats at the end of the further-altered restatement of the initial riff during the bass solo aid in the retrospective interpretation of the entire forty-measure section as a single unit guided by a slowly-unfolding linear additive process; thus, I consider this example to be intertextual with minimalism.

While there are a few examples of linear additive process similar to the example from “The Ytse Jam” in Dream Theater’s catalog, a more common additive process found in the band’s music is an interrupted linear process, which I label as ABAC additive metrical process (or ABAC-AMP). The individual labels A, B, and C in this label refer to metric cardinality: for instance, an additive ABAC pattern on the surface level might hypothetically involve a bar of triple meter, a bar of quadruple meter, a restatement of the initial bar of triple meter, and a concluding bar of quintuple meter (3+4+3+5)—thus, in an additive ABAC pattern, B is greater than A, and C is greater than both A and B. In Dream Theater’s music, the metric character of these subphrase/phrase-level patterns typically parallels the concomitant motivic/thematic character, which would be labeled either [abac] or—more commonly—[aa’aa’']. Both [abac] and [aa’aa’'] subphrase/phrase structures generally involve the gestural pattern of Statement-Departure-Restatement-Conclusion, which is a pattern I hear frequently in rock music (as well as in many other styles of popular music). Thus, I conceive of the ABAC-AMP as a reconciliation between minimalist linear additive process and a typical rock subphrase/phrase structure.

34 I have heard at least one example of an ABAC-AMP on each of Dream Theater’s studio albums.
35 My labeling of this pattern—abbreviated SDRC—follows Walter Everett’s description of the related (yet more blues-derived) SRDC structure, which he discusses in his analyses of 1950s and 60s pop/rock music. See Everett, The Beatles as Musicians: Revolver through the Anthology (London: Oxford University Press, 1999), 318; see also Everett, The Foundations of Rock: From “Blue Suede Shoes” to “Suite: Judy Blue Eyes” (London: Oxford University Press, 2008), 140-141.
Bowman analyzes an earlier example of an ABAC-AMP in Rush’s introduction to “Cygnus X-1” in *Progressive Rock Reconsidered*, which involves a 6+7+6+8 pattern related to systematic terminal motivic repetition. Dream Theater’s ABAC-AMPs involve this type of repetition and metrical expansion frequently, though I also hear examples of patterned expansion in the band’s music that are concurrent with instances of addition and augmentation. The most commonly-encountered ABAC-AMPs in Dream Theater’s catalog, however, involve situations in which the specific type of motivic transformation is inconsistent (e.g., the “Departure” subphrase features augmentation whereas the “Conclusion” subphrase introduces addition). One example of this type is the Link section to “Burning My Soul” from the album *Falling Into Infinity*, which connects the end of Derek Sherinian’s Interlude-closing keyboard solo to the third Verse section (see Figure 4.11).

![Figure 4.11](image)

This excerpt’s initial riff Statement, which is a simplification of previously-sounding material in the accompaniment to Sherinian’s solo, involves a one-bar rhythmic pattern sounding...
in triple meter, which I have notated in 3/4. Petrucci performs this pattern with distorted, palm-muted E power chords, which combine with Myung’s doubling of the rhythm with an open low E string—as well as Portnoy’s loud low tom attacks and double bass drumming—to create a very “heavy” sound typical of modern metal bands. This timbral “heaviness” clothes the seemingly-minimalist ABAC-AMP that emerges in the four-bar hypermeasure, resulting in an eclectic sound that is characteristic of progressive metal.

The second measure serves as a slight Departure from the initial riff, and is characterized by the addition of two sixteenth notes to the terminal position of the bar (or perhaps by the partial repetition of the two sixteenth/eighth rhythmic motive from the outset of the theme).38 This motivic transformation accompanies metrical expansion, which undercuts the quarter note pulse stream of the tactus, yielding a surprising experience upon first listen. The quarter note stream is restored in the third bar’s Restatement subphrase, and continues throughout the Conclusion in the fourth bar, which features a clearer terminal repetition and expansion to an isochronous 4/4 meter. The resultant profile of the hypermeasure is that of an interrupted additive process on the surface level: the grouping eventually increases from six eighth notes (the 3/4 bar) through seven eighths (the 7/8 bar) to eight eighths (the 4/4 bar), but with a return to the initial grouping in the third bar that obscures the overall linear expansion.

Another example of an ABAC-AMP from Dream Theater’s catalog in which multiple expansion-related motivic techniques are presented comes from the beginning of the Interlude section to “Lifting Shadows Off a Dream” from the album Awake (see Figure 4.12). In this section, however, the expansion is heard on the two-bar level—that of the hyperbeat in the section’s eight-bar quadruple hypermeasure. The initial Statement hyperbeat sounds as two measures of quadruple meter and introduces the Interlude’s riff, which is performed exclusively by Petrucci. This riff outlines the B minor pentatonic scale (with a lone C# passing tone), and features a salient over-the-bar line syncopation that is heavily accented by both Portnoy and Myung. The second hyperbeat transposes and alters the riff to outline a fifth-mode harmonic minor scale on E that is initially decorated by a double-neighbor “enclosure” of E3. This Departure subphrase features two altered restatements of the first bar, and includes a déjà vu-like

38 The lack of a salient melodic contour in this riff makes the distinction between types of motivic transformations difficult, if not altogether arbitrary. However, I find it less problematic to label the transformation at the end of the second bar as addition rather than partial repetition, as I experience the situation as a transgression (as “going too far”) in the moment, rather than as a recurrence (or being “knocked back” in time).
terminal repetition of the eighth/quarter syncopation at the end of each measure that coincides
with a metrical expansion to sextuple meter. Linear metrical expansion is interrupted in the
Restatement subphrase, which returns to quadruple meter and transposes the initial riff to A
minor pentatonic. The Conclusion subphrase of the section—the seventh and eighth measures—
includes yet another thematic and metrical expansion, and begins by repeating the first nine beats
of the Departure (transposed to begin the double neighbor on E-flat). The eighth and final
measure of the section deviates from the internal consistency of two-bar units with regard to
metric cardinality—and additionally deviates from the consistent use of motivic repetition-
related expansion—by sounding in a septuple meter that is related to the addition of a four-beat
ascent to a climactic D5 in the guitar melody. This extension of the Departure—which itself is
an extension of the Statement—results in an overall additive profile on the hyperbeat level in the
Interlude from A (eight beats) through B (twelve beats) to C (thirteen beats); however, the
additive process is non-linear, as the return to the initial cardinality during the Restatement
subphrase undercuts consistent expansion.

Unlike the “Burning My Soul” example, this section’s additive metrical expansion does
not undermine the tactus-level pulse stream (which I have notated as a quarter note), which I
hear as combining with its organic thematic nature to result in a sense of sustained continuity
amid the disruptive changes in meter.

Another interesting aspect of this example involves harmony. The root motion of falling
fifths every other measure—which further reinforces the hypermetrical segmentation of the
section into four units—creates a feeling of harmonic instability that echoes the section’s
metrical complexity and serves to create contrast between formal units sharing a D centricity. I
hear the thematic repetition in the Interlude as combining with the root motion to create a
progressive metal trope on the falling fifths sequence of common-practice tonality.

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39 The transposed repetition is inexact, as Petrucci includes palm-muted sixteenth-notes at the end of the seventh
measure. Additionally, the Conclusion is differentiated by the drum pattern, which no longer accents the guitar
syncopations and more clearly emphasizes the tactus-level quarter note pulse stream.
40 The expansion in this excerpt is also non-linear with regard to the increase in cardinality: whereas the expansion
in “The Ytse Jam” and “Burning My Soul” examples proceeded incrementally by one unit (16+17+18 and 6+7+8,
respectively), this example’s increases are inconsistent (8+12+13).
Figure 4.12 ABAC-AMP on the two-bar level in “Lifting Shadows Off a Dream,” 3:33-3:56.

Metrical Contraction

In *Structural Functions in Music*, Wallace Berry used examples from Beethoven and Blacher to define the “metric contraction,” which involves “initiative impulses of increasing frequency.” These examples involve systematic long-range contractions (e.g. the 8+8+4+2 pattern from the Scherzo movement of Beethoven’s Symphony No. 2) similar to the patterns from the Dream Theater examples I discuss later in this section, which I label as “subtractive process” and “metrical liquidation.” However, singular and/or unsystematic contractions—where the projected downbeat comes “too soon”—are far more common in Dream Theater’s

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41 Berry, *Structural Functions in Music*, 383.
music. These contractions, which are typically related to the motivic transformations of diminution and subtraction, sound most frequently in the “tail” position of riffs. Whereas terminal transformation-related expansion often involves a complete realization of the projected riff plus “extra” durations which can serve to strengthen the meter’s upbeat and result in a relatively low degree of disorientation, terminal transformation-related contraction—which does not involve a complete realization of the projected riff and may undermine salient pulse streams—usually sounds quite surprising.

**Diminution.** The most common developmental motivic technique associated with metrical contraction in Dream Theater’s music is diminution. Diminution-related contraction, as mentioned previously, occurs most frequently in the terminal position of an altered restatement of a riff. A clear example of metrical contraction that is concurrent with terminal diminution from Dream Theater’s catalog is the beginning of the Conclusion section to “Hell’s Kitchen” from *Falling Into Infinity* (see Figure 4.13).

![Figure 4.13 Diminution and metrical contraction in Dream Theater’s “Hell’s Kitchen,” 3:18-3:40.](image)

In this example, the primary dotted-quarter riff—which is doubled at the octave and initially evokes the Lydian mode with #4-3 motion above the bass’s E—is stated atop a backbeat in compound quadruple meter, which I have notated as 12/8. The second and fourth bars of this
example—which sound as the weak hyperbeats in a normative four-bar hypermeasure—are metrically altered to sound as 10/8 (3+3+2+2), which corresponds to the diminution of the riff’s last two dotted quarter-notes (on B and G#, respectively).

These contractions, which temporarily deactivate the tactus-level pulse stream, sound abrupt; however, a more disorienting phenomenon sounds in the second hypermeasure. This phrase begins with a melodically altered (but not metrically altered) restatement of the initial riff, which features a consistent ascent up an A# Phrygian tetrachord. In the moment, two projections of the second bar’s grouping are plausible: either the meter will remain as 12/8 (thus rectifying the abrupt metrical “problem” of the initial hypermeasure), or it will change to 10/8 (maintaining the patterned alternation of 12+10). Surprisingly, neither of these projections is realized; rather, the subtheme is more thoroughly diminuted, sounding as a measure of 4/4. While this grouping preserves the both the isochrony and the quadruple beat cardinality of the initial riff, I hear it as more disruptive than the 10/8 bars, as it subverts more implications.

For me, the additional diminution of the Conclusion’s sixth bar hints also creates a new implication—that of a systematic contraction, which, like the projections of 12/8 and 10/8 for the bar, never materializes; instead, the 12/8 grouping persists in the final hyperbeat. Overall, Dream Theater is able to create and undermine a significant number of projections in a relatively short amount of time in the Conclusion by using carefully-placed, thematic diminution-related metrical contractions, which create interest in an otherwise repetitive musical environment.

**Subtraction.** Concurrent thematic and metrical contraction is heard frequently in Dream Theater’s music via the technique of subtraction, though not as often as with diminution. Though terminal subtraction-related contraction is more common than the intermediate variety, I begin with an example of the latter phenomenon; I do so because both examples in this subsection come from the same song—“Erotomania” from the album *Awake*—and the example of intermediate subtraction begins the work (see Figure 4.14).

“Erotomania,” the instrumental second movement of the three-part suite “A Mind Beside Itself,” begins with a nebulous keyboard Introduction whose inconsistent voice-leading and chord qualities belie its logic. This Introduction is also metrically vague, as it begins by

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42 Cateforis alludes to Don Caballero’s use of subtraction-related metrical contraction in his analysis of the song “Stupid Puma,” which he calls “the prototypical math rock song (Cateforis, “How Alternative Turned Progressive,” 245-251).” Sheinbaum also implies the phenomenon in his analysis of Yes’s “Roundabout,” though he does not describe subtraction as a compositional technique—he simply observes rhythmic differences between two similar motives (Sheinbaum, “Progressive Rock and the Inversion of Musical Values,” 34).
accenting two unequal durations, each of which can only be interpreted as supporting the subsequent section’s 2+2+3+3 grouping (which I have notated in 10/8) in retrospect.\textsuperscript{43} The final measure of the first four bars is slightly shorter than the previous three, and seems to be related via the subtraction of an eighth-rest near the end of the bar—but which one?

This too is only clarified retrospectively, by the treatment of the guitar riff. This two-bar riff, which enters abruptly to begin the main theme of the song, is performed an octave apart by the distorted guitar and bass, and, like many Dream Theater riffs, is composed of two related subthemes. Each subtheme accentuates the first and last beat of the non-isochronous measure with chromatic root motion (F#-G-G#-A) that seems to clarify the implication of chordal planing from the keyboard introduction. The location of subtraction-related metrical contraction is also elucidated by the main theme, as the eighth-rest between the guitar riff’s G2-E2 leap is omitted during final subphrase in the four-bar hypermeasure; thus, the theme—and by extension, the keyboard Introduction—is altered via intermediate subtraction of the last bar’s ninth beat division.

Interestingly, the altered measure is also metrically ambiguous. Despite the clear subtraction in the main theme that is involved in the accentual grouping’s change from (2+2+3+3) to (2+2+3+2) in the guitar, bass, and keyboard parts, the drum part forcefully emphasizes a different rotation of this non-isochronous 9/8 pattern (2+2+2+3). Though I normally hear the drums as possessing the most grouping “power” in Dream Theater’s music, I perceive each pattern as equally strong in this example on different listens.\textsuperscript{44}

\textsuperscript{43} Metrical vagueness— in which no determinate metrical pattern emerges due to an absence of multiple structural levels—is described by London as being different from metrical ambiguity—in which a truly metrical context can be construed in different ways by different listeners (London, Hearing in Time, 86).

\textsuperscript{44} This ambiguity informs my transcription, as I continue the initial (2+2+3) grouping in the keyboard and guitar parts in the 9/8 measures while notating Portnoy’s part as beginning with (2+2+2).
Another example of subtraction-related metrical contraction can be heard in “Erotomania” during the Link section between the end of the guitar solo and the beginning of the return to the main theme; this time, the subtraction is of the more common terminal variety (see Figure 4.15). In this section, Petrucci performs a very “heavy”-sounding two-bar power chord-centric riff on F# with a quick rhythmic figure that is doubled by Myung’s pedal F#s and
Portnoy’s double kick drums. Petrucci deviates from the power chords only at the end of each measure, with the second bar’s departure accented by the lack of palm-muting: this results once again in the segmentation of the two-bar riff into related one-bar subphrases. Though the quarter-note tempo remains the same as in the song’s Introduction, the overall pulse is slowed by Portnoy’s half-time feel backbeat; this reinterprets the durations of Kevin Moore’s highly syncopated, seemingly-improvised variations on the main theme as subdivisions. After repeating the Link’s initial riff twice with a full drum texture, a third iteration begins, with Portnoy performing the section’s characteristic rhythmic pattern exclusively on his snare drum. However, this restatement is abruptly truncated, as the riff’s terminal motive is deleted, and the downbeat of the main theme arrives “too soon.”

Figure 4.15 Terminal subtraction and metrical contraction in “Erotomania,” 5:29-5:43.

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45 As with the example from “The Great Debate,” I have chosen to notate this section in 4/2 for the purpose of notational clarity.
Though the resultant triple-meter bar preserves the tactus-level half note pulse stream (as well as all of its related lower-level streams) and does not create an asymmetrical pattern, I still hear the metrical contraction as being quite startling. This is due to its early hypermetrical position: whereas most of the examples I have given in this chapter involve the alteration of a terminal hyperbeat, and thus of a metrical state that had been essentially realized, the contraction in this excerpt truncates a hypermeasure that had barely begun to exist; thus, rather than solely hearing the subtraction of the surface-level half note duration, I additionally hear the subtraction of the remaining twelve half notes that would complete a normative four-bar unit.\footnote{In this way, the example can be considered an instance of both internal subtraction (involving the contraction of a theme) and external subtraction (involving the contraction of a hypermeasure that is dependant upon the repetition of a theme). I discuss external subtraction later in this chapter.}

**Subtractive Process and Metrical Liquidation.** Walsh observes an “interesting subtractive process” in the Conclusion to Rush’s “7/4 War Furor” subsection from “By-Tor and the Snow Dog,” a seven-part composition from the 1975 album *Fly By Night*\footnote{Walsh, *Structure, Function, and Process in the Early Song Cycles and Extended Songs of the Canadian Rock Group Rush*, 178-179. “By-Tor and the Snow Dog” actually comprises only four movements; however, the third movement is further divided into four subsections, with each subsection possessing a title. Notably, Walsh’s analysis of the movement is in support of his argument for the consideration of “By-Tor” as reflecting an overt prog influence, and he frequently claims that the band’s use of changing and asymmetrical meter signifies this influence.} In the example, the trio performs E unisons with eighth-note rhythms (according to Walsh’s transcription) in incrementally-decreasing groups of seven, six, five, and four before concluding with a sustained E power chord. This instance of linear subtractive process strikes me as particularly minimalistic, as the motoric and evenly-accented eighth note pattern combines with the static melody to create metrical ambiguity and a lack of goal-directedness. Dream Theater’s catalog does contain a few similar examples of linear subtractive process; however, they are decidedly more metrical, and thus possess a higher degree of teleology. As such, I consider them to be examples of what Berry calls “metric contractions,” similar to the examples from Beethoven and Blacher cited in *Structural Functions in Music*.\footnote{One might re-label Berry’s “metric contraction” as a “metric crescendo” for efficiency, as the term “rhythmic crescendo” is already in use and describes a similar phenomenon. Whereas a “rhythmic crescendo” involves the incremental decrease of a rhythmic duration, a “metric crescendo” can be said to involve an incremental decrease in the duration of a perceived accent-delineated rhythmic grouping.}

The term “metric contraction” does not fully describe the linear subtractive patterns in Dream Theater’s music, however, as I usually perceive a salient motivic transformation and functional role that accompanies the systematic reduction in grouping. Most often, the band deploys a metric contraction simultaneously with a gradual motivic disintegration to bring a riff-
centered musical section to a close and allow new material to break through to the foreground. In this way, the process invokes Schoenberg’s concept of “liquidation;” however, since it operates beyond the level of pitch-and-rhythm motives and involves meter, I refer to it as “metrical liquidation.” One example of metrical liquidation from Dream Theater’s music comes from the transition between the Conclusion of the second movement and the Introduction of the third movement from the title track to the album *Octavarium* (see Figure 4.16).

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![Figure 4.16 Metrical liquidation in Dream Theater’s “Octavarium,” 13:40-13:48.](image)

Immediately prior to this example in “Octavarium,” Rudess performs a prog-inspired synth solo atop a chromatically-descending line in the guitar and bass, whose accents are echoed by Portnoy’s drum pattern. This accompaniment can be heard as a call-and-response texture, with the “call” being a quick four-note chromatic descent and the “response” being a sustained power chord with a root a semitone lower in pitch-class space. As Rudess’s solo comes to a close, the accompaniment takes the foreground, though it is fragmented: only the four-note “call” remains, and it is presented in compound quadruple meter (which I have notated as 12/8). This “call” figure is then subjected to a systematic motivic and metrical contraction via diminution.

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49 The duple periodicity of the drum pattern in the first measure of this example may lead some listeners to hear 6/8 rather than 12/8; however, I hear the restated four-note motive as being accentually primary.
wherein the initial dotted-quarter rhythm is changed to quarters, then to dotted-eighths, and finally to eighths. In the final bar of this transition (which I can still perceive as a normative—yet uneven and non-isochronous—four-bar hypermeasure), the initial “call” is altered further, as the last of the group of four notes is subtracted—presumably to lead to the following key of F minor without altering the motive’s characteristic linear chromatic descent. In sixteenth note durations, the overall rhythmic/metric pattern is as follows: 6+6+6+6, 4+4+4+4, 3+3+3+3, 2+2+2. The combination of metric contraction, motivic disintegration, and transitional function in this example yields a very salient experience of liquidation—I can readily feel the “Medicate (Awakening)” movement “shrinking” away into nothingness as the subsequent movement begins.

Though a handful of examples of the motivically-related, linear subtractive metrical process that I have labeled as “metrical liquidation” exist in Dream Theater’s music, a far more common long-range subtractive phenomenon is the interrupted ABAC process. This process can be considered the inverse of the interrupted ABAC-AMP discussed earlier in this chapter; thus, I give it the unwieldy label ABAC-SMP (ABAC subtractive metrical process). Just as with ABAC-AMPs, ABAC-SMPs outline the subphrase/phrase structure of Statement-Departure-Restatement-Conclusion, which in turn reinforces a quadruple hypermeasure. The sole difference between the two phenomena is the nature of the variation within the weak hyperbeats: whereas the “B” and “C” hyperbeats in ABAC-AMPs are larger than the “A” hyperbeats and are varied by the transformations of augmentation and/or addition and/or repetition, the “B” and “C” hyperbeats in ABAC-SMPs are smaller than the “A” hyperbeats and are varied by the transformations of diminution and/or subtraction.

A clear instance of an ABAC-SMP from Dream Theater’s oeuvre can be heard in the Link section to “Blind Faith” from *Six Degrees of Inner Turbulence*, which immediately precedes Petrucci’s bombastic distorted baritone guitar solo.50

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50 The baritone guitar was popularized in American surf and country music, and is typically tuned a perfect fifth lower than the traditional tuning of a standard guitar (ADGCEA). While this results in a lower range capable of creating thunderous distorted power chord riffs (and indeed the instrument is used by some metal bands for this purpose), “Blind Faith” does not include examples of these. Additionally, this example does not include any pitch material that is impossible to perform on a standard guitar. As such, I hesitate to ascribe any stylistic significance to Petrucci’s choice to use the instrument in my analysis.
The Link begins with the guitar and bass taking up LaBrie’s vocal syncopation from the previous Bridge section (which I have notated as dotted eighth notes). These instruments vary the dotted-eighth pulse stream in the Statement of the initial riff to create a common diatonic rhythm (3+3+3+3+2+2) on the level of the subdivision atop the implied quadruple meter. In the Departure bar, the rhythmic character of the riff begins identically; however, the terminal grouping (2+2) is subtracted, which retrospectively creates a bar of triple meter upon the “early” arrival of the Restatement’s downbeat. As the Restatement proceeds, the projection of another 3/4 grouping in the subsequent measure builds—especially since there are no audible changes made to the initial riff (and as such, one might imply a two-bar pattern that is literally repeated).

Endrinal categorizes the types of formal sections routinely called “Bridges” by performers and analysts based on the presence of texted lyrics, labeling untexted, instrumental contrasting sections “Interludes” while labeling texted sections “Interverses.” As the term “Interverse” has yet to reach predominance in the field, I will maintain the use of the term “Bridge” to describe significant contrasting sections of texted music that typically lie between Choruses of popular songs, though I do follow his use of the term “Interlude” in my analyses.

During the Link, Portnoy plays a double-time quadruple meter feel (with backbeat accents on the notated off-beats), such that the diatonic rhythm sounds on the division level rather than the subdivision level. However, this material is repeated during the keyboard solo of the Interlude section, with Portnoy playing at the same tempo as the rest of the ensemble. As such, I retrospectively interpret the “true” meter of this material to be quadruple at the tempo notated in Figure 4.17.

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However, another metrical surprise comes in the form of a further contraction in the fourth bar; this results in the retrospective recognition of an interrupted subtractive process that unfolds on the surface level from A (eight eighth notes) through B (six eighth notes) to C (five eighth notes) throughout the four-bar hypermeasure.

The specific type of motivic transformation related to the metrical contraction of the Conclusion subphrase is ambiguous: one might hear the resultant (3+2) pattern as related to the initial riff through the intermediate subtraction of a (3+3) grouping; however, one could also understand the pattern as related directly to the Departure subphrase via the diminution of the terminal (3+3) grouping into (2+2). Regardless, the consequential non-isochronous meter introduces the most startling temporal experience of the Link, as the quarter note pulse stream that had persisted throughout the section—and indeed for the entirety of the song to that point—is undermined. Interestingly, Portnoy continues his quarter note-accenting double-time 4/4 pattern through the contracted bar, and throughout the majority of the subsequent altered restatement of the hypermeasure. While this doesn’t disrupt my perception of meter in the repeated section or sound polymetrically, it reverses the drums’ pattern of stress: rather than accenting off-beats with the snare drum in the manner of a double-time backbeat, the pattern attacks the beat more clearly. I hear this pattern reversal as increasing the intensity in the repeat of the Link, which creates a heightened anticipation of the following formal section.

Metrical Reinterpretation

Chapter 2 introduced Butler’s 2006 re-evaluation of the term “metrical reinterpretation,” which was originally—and problematically—used to describe the reinterpretation of hypermetrical events. Butler’s solutions are the terms “reinterpretation of metrical type” and “turning the beat around,” each of which describe surface-level reconsiderations of meter based on changes in texture. These terms strike me as slightly unwieldy and fanciful (respectively); additionally, they avoid re-defining the original problematic term. Thus, I use the term “metrical reinterpretation” to generally describe the reconsideration of surface-level beat strength, beat grouping, and beat division in my analyses.

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53 I tend to support the latter interpretation, due to the shared weak hypermetrical placement of the second and fourth bars, as well as the melodic leap at the beginning of each bar. However, both analyses are viable.
54 Portnoy breaks from the 4/4 pattern in the Conclusion subphrase during the repeat of the Link, instead accenting in unison rhythm with the guitar and bass.
Three types of metrical reinterpretation are routinely experienced in Dream Theater’s music: the reinterpretation of beat division (simple v. compound v. non-isochronous or “additive”), of beat grouping (or cardinality, i.e. triple v. quadruple, etc.), and of downbeat location. These phenomena needn’t involve direct relationships between meter and motive; however, in Dream Theater’s music, they typically do. Thus, one can think of metrical reinterpretation in these instances as the reinterpretation of a motive or theme’s metrical presentation via changes in beat division, beat grouping, and downbeat location—or, as Portnoy puts it, as “transposing” a theme into a different “time signature.”

Reinterpretations of beat division and beat grouping are described by Butler’s term “reinterpretation of metrical type,” which I re-label “internal reordering” in my analyses in order to better explain the most typical situation in Dream Theater’s music, wherein a thematically- and accentually-delineated span is held constant while internal beats and/or divisions are altered (e.g. a span of six divisions that are initially perceived as projecting a simple triple meter are altered so as to project a compound duple meter, thereby reinterpreting both division and cardinality, as in a hemiola). Reinterpretations of downbeat location are described by Butler’s colloquial and disco-influenced term “turning the beat around;” however, I will use the term “bar line shift” in my analyses, as I have come across this expression more frequently in my experiences as a jazz and rock performer.\footnote{Jerry Coker even devotes a section of his well-known 1991 jazz pedagogy book to the “bar-line shift” (Coker, Elements of the Jazz Language for the Developing Improviser, Miami, FL: Warner Bros. Publications, 1991, 83).}

The “time signature transpositions” I hear in Dream Theater’s music frequently involve the technique of “metric modulation” as well, wherein the transition between different tempi is smoothed via shared pulse streams.\footnote{Metric modulation was popularized by Elliott Carter, and is also known by the names “temporal modulation” and “tempo modulation.”} Metric modulation is often used during transitions in classic-era progressive rock, and Walsh briefly notes Rush’s use of the technique in the transitions between formal sections in the multi-movement “By-Tor and the Snow Dog.”\footnote{Walsh, Structure, Function, and Process in the Early Song Cycles and Extended Songs of the Canadian Rock Group Rush, 183.}

One example of metrical reinterpretation from Dream Theater’s catalog that involves the technique of metric modulation is the beginning of the Introduction to “The Mirror” from the album Awake (see Figure 4.18). This example possesses an intense “metal” sound due to the distorted power chords performed on the seven-string guitar in its lowest possible range (in...
standard tuning), as well as the volume with which Portnoy attacks the drums; however, the passage’s metric complexity points to the progressive style.

This song’s Introduction features two types of metrical complexity within the first six seconds of its duration. The first of these is concurrent terminal subtraction and metrical contraction. After a brief, distorted shriek of an anacrusis (produced by sweep-picked natural harmonics), Petrucci’s metrically-underdetermined guitar part sounds, featuring three short rhythmic durations and a rest. The accentual grouping of this part is eventually delineated by the entrance of the drums, which retrospectively project simple quadruple meter (which I have notated as 4/4). Upon entering, the drums imply a more emphatic restatement of the initial bar by supporting the guitar part’s rhythmic motive with loud snare drum attacks. However, the
final beat of the second bar never materializes, and a new, confounding pattern and tempo emerges “too early.” Retrospectively, the second measure can be heard in triple meter, as an altered restatement of the first bar that involves simultaneous thematic subtraction and metrical contraction (see Figure 4.19).

The emergent pattern in the third bar is surprising, though continuity is afforded by both motivic similarity (the maintenance of the three sixteenth note attack/single sixteenth rest pattern of B power chords) and metric modulation, which smoothes the changes in tempo, beat division, and beat grouping. The modulation is created by the “pivot pulse” of the sixteenth note, which becomes grouped in threes as divisions by the drums, rather than grouped in fours as subdivisions as in the previous measures. One could also consider the pivot as being the dotted-eighth, whose duration was accented in the first two bars by the guitar’s attacks, and becomes accented by the drums in the following measures. While mm. 3-4 could be considered an example of polymeter or “metrical dissonance” (following Krebs), with the guitar (and the newly-entering bass) maintaining a simple triple pattern above the drums’ compound quadruple layer, I hear the drums as being accentually superior, relegating the guitar’s grouping to the inferior status of syncopation.58 As such, I illustrate the drum pattern with a solid line in Figure 4.19 to emphasize its metric status, whereas I represent the guitar syncopation with a dotted line.

My interpretation of the meter change from the second bar to the third bar of “The Mirror” involves the internal reordering and reinterpretation of the accents within a twelve-pulse span. The truncated second bar creates the span, and the guitar and drums divide it into three equal pulses. Then, the same span is repeated in mm. 3-4, but with a division into four equal pulses, which necessarily creates changes in beat grouping and beat division, as well as the experience of an increase in tempo by 33%.59 This interpretation, like most of the interpretations in this chapter, is entirely retrospective, as the multiple meter changes are surprising in the moment. However, the example’s complexities yield an interesting metaphorical listening experience that I encounter very frequently with the band’s music: I feel as if I am “lagging back” in time to evaluate the temporality of a given passage while it unfolds “in front” of me,

58 Following Krebs’s labeling, this metrical dissonance would be labeled “G 4/3 (sixteenth note = 1)” to denote the 4:3 ratio between the two pulse layers on the level of the sixteenth note. I provide a more detailed description of Krebs’s types of metrical dissonance later in this chapter.
59 The actual tempo increases by a slightly higher amount, as the performers speed up slightly in the third bar.
such that the majority of my hearing becomes retrospective, rather than projective (as with periodic music).

Another example of metrical reinterpretation can be heard seconds later in the same composition. At 0:23, the band settles into a heavy metal groove in a simple quadruple meter that I have notated in 4/4, which resolves the metrical dissonance from the previous section by presenting the song’s initial guitar motive above a consistent backbeat (and salient double bass drumming). I hear this section as possessing less tension than the opening measures despite the loud and frantic double bass drumming, as the periodic meter consistently realizes projected

Figure 4.19  A London-style diagram of the thematic/metrical transformation and subsequent reinterpretation in “The Mirror,” 0:01-0:14.
The first two repeated measures of my transcription form the majority of a five-bar hypermeasure from within the Introduction that contains an interpolation, such that the first notated bar of the second system is the “hyper-upbeat” into the following hypermeasure. While the interpolation is somewhat unusual in Dream Theater’s music (which largely adheres to four-
bar units), a more surprising situation occurs at the end of the fifth bar. Here, Petrucci’s distorted guitar part—which is echoed by Myung’s bass part—continues its characteristic three sixteenth note attack/single sixteenth rest pattern of B power chords into the next bar, while Portnoy executes a drum fill that extends beyond the projected bar line by a sixteenth note. Immediately afterward, Portnoy begins a double-time 4/4 pattern on the “wrong” sixteenth, which he continues for over eight measures in duration. Since the full-textured drum backbeat carries more accentual strength than the guitar and bass parts in this instance, I do not hear the subsequent section as an example of what Krebs calls “displacement dissonance,” where two polymetric layers are offset by a given duration. Rather, I hear the drums as grouping the guitar and bass parts as syncopations (as in the previous example), such that the “overshot” downbeat is relocated “forward” by one sixteenth (see Figure 4.21). As a result of this “bar line shift,” the Introduction riff—which had persisted for nearly a minute—becomes reinterpreted, sounding as if it has been rotated “backward” by one sixteenth. Additionally, the previous measure becomes retrospectively reinterpreted as having been expanded by one sixteenth. However, since the expansion doesn’t undermine the previously-held quarter note pulse stream until the very end of the bar (and thus sounds like a bar of 4/4 plus an “extra” note), I have notated this measure as a very uneven 17/16, with the sixteenths grouped 4+4+4+4+1, rather than a rotation of the maximally-even sextuple pattern 3+3+3+3+2.

Both of these examples of metrical reinterpretation from “The Mirror” clearly demonstrate Dream Theater’s compositional “efficiency”—its tendency to “milk a motive dry” by developing it in several ways over a long period of time—as well as its prog-inspired penchant for creating an aural emphasis on meter. In these examples, the primary motive is

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60 Due to the double-time pattern played by the drums, I hear the guitar and bass syncopations as sounding as beat divisions, rather than subdivisions as before. While I have notated the subsequent section in double-time in Figure 4.20 (which uses the time signature 4/8 solely to maintain the appearance of the guitar part as sixteenth notes), I have not changed the initial 16-cycle in the diagram to Figure 4.21 to an 8-cycle. This is only for clarity, and is done to show the similar quadruple meters in the initial section and the double-time section, despite the change in tempo.

61 This “rotation” technique is most famously encountered in Steve Reich’s 1972 piece “Clapping Music.” The technique is also known as “beat-class transposition” and more simply, “rhythmic displacement.” See Cohn, “Transpositional Combination of Beat-Class Sets in Steve Reich’s Phase-Shifting Music”; see also Roeder, “Beat-Class Modulation in Steve Reich’s Music” (Music Theory Spectrum 25/2 (2003): 275-304). I have notated the beat-class transposition as bT₁ in my transcription to illustrate my experience of the riff being rotated backward; however, one could also show it as being rotated forward fifteen subdivisions (bT₁₅). Also, while the rotation technique is typically associated with minimalist composition, I do not hear this short example as being particularly intertextual with the style. However, I do hear the beat-class transposition in Dream Theater’s “Sacrificed Sons” as an intertextual reference, as it combines with other minimalist processes to create a more perceivable allusion. I analyze “Sacrificed Sons” in its entirety in Chapter 5.
almost devoid of character, as it possesses no melodic contour and features a simplistic rhythm. However, this lack of distinctness makes the motive more metrically malleable, as it can be reinterpreted into several groupings without sounding disorienting. Thus, by composing such a “blank slate” of a motive, the band enables itself to create meter-centric music with ease.

<table>
<thead>
<tr>
<th>Initial grouping</th>
<th>“Overshooting the downbeat”</th>
<th>Metrical reinterpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4+4+4+4</td>
<td>4+4+4+4+1</td>
<td>Bar line shift</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+1)</td>
</tr>
</tbody>
</table>

![Diagram](image)

**Figure 4.21** A London-style diagram of the “bar line shift” and metrical reinterpretation in “The Mirror,” 0:23-0:40.

A third noteworthy example of metrical reinterpretation from Dream Theater’s catalog involves the fourth theme from the episodic instrumental scene from *Scenes From A Memory* “The Dance of Eternity,” whose Conclusion was discussed earlier in this chapter in the context of metrical expansion. Though this example involves the same types of metrical complexity as the initial example from this subsection (internal reordering and metric modulation), I have
chosen to discuss it last; I have done so simply because both of the previous examples in this subsection come from the same composition.

My transcription of this example begins midway through the formal section devoted to the development of the fourth theme, whose 5+5+5+5, 5+5+5+5+4 rhythmic pattern is derived from an earlier scene in the concept album, “Fatal Tragedy,” which is discussed later in this chapter (see Figure 4.22). This “theme” is similar to the examples from “The Mirror,” in that its character is almost entirely derived from its rhythmic pattern, as it possesses no melodic contour. Additionally, the pitch-class B—performed on the lowest open strings of Petrucci’s distorted seven-string guitar and Myung’s six-string bass—is shared by these examples as the centric pitch-class.\(^{62}\)

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**Figure 4.22** Metric modulation and reinterpretation in “The Dance of Eternity,” 1:55-2:06.

\(^{62}\) This theme from “The Dance of Eternity” is even more melodically-minimal than that of “The Mirror,” as the B naturals are not harmonized with power chords.
One significant difference between this theme and that of “The Mirror” is its ambiguous metrical presentation, which adds another level of complexity to the experience of the music. This ambiguity is created by the metrical dissonance between the predominantly duple drum pattern and the irregular accents of the guitar and bass. While the two patterns eventually align after eleven pulses (which I have notated as quarter notes), I hear a division in the theme in the middle of the cycle, where the quarter note drum pulse aligns with its 5:4 grouping dissonance on the subdivision level after four iterations. This alignment is not unequivocally projected, however, as the theme only matches up with the drums’ pulse, not their periodicity—the double-bass-embellished backbeat continues, and its initially-duple pattern does not support a 5+6 grouping of quarters. I have chosen to notate the drums in a 6+5 pattern; however, there are many possible construals of the situation—indeed, the transcription of “The Dance of Eternity” included in Dream Theater’s Full Score Anthology, which was advertised as having been “reviewed and approved” by the band, notates both the guitar and drum parts in 11/4.

Regardless of how one chooses to notate the metrically-dissonant cycle, it can be said to enliven the highly-repetitive section dedicated to the fourth theme.

Dream Theater creates even more interest in the section through metrical reinterpretation, which is heard during the hypermetrical upbeat to the more melodically-driven subsequent section beginning at 2:06 (I have notated the modulation in the second system of my transcription in Figure 4.22). Here, Portnoy takes up the five-sixteenth pulse created by the theme’s syncopated accentual pattern, and reinterprets the pulse as the tactus in a backbeat feel while the guitar and bass continue the theme. This metrical modulation, made possible by the five-sixteenth “pivot pulse,” resolves the dissonance between the two layers, and additionally engenders the experience of a decrease in tempo by 20%. However, some ambiguity remains, as the new tactus—which is accented by the drums’ backbeat pattern—is underdetermined with regard to division type: while the drums group the guitar and bass rhythms as quintuplets which divide the tactus evenly, there is no sounding division by a factor of two or three—thus, it is

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63 This theme from “The Dance of Eternity” can thus be described as an 11-cycle on the quarter note level; however, since the quarter note pulse is abandoned during the metrical modulation, I label the cycle on the sixteenth note level as a 44-cycle.
64 Dream Theater, Full Score Anthology (Miami, FL: Warner Bros. Publications, 2002), 11. As noted on the first page of the anthology, the transcription of “The Dance of Eternity” was done by Anthony Geluso, Ryan Maziarz, and Chris Romero of progressivetranscriptions.com.
unclear whether the forming meter is simple or compound. Additionally, the backbeat is abandoned after six quarter notes, as Portnoy doubles the theme’s rhythm on the snare drum for the seventh pulse. This calls the higher-level grouping of the septuple drum pattern into question, which could be considered to be 4+3, 6+1, or 2+2+3 in quarter notes (I have chosen the first option in my transcription).

Yet another complexity arises toward the end of this hyperbeat, as Portnoy breaks away from his slower pattern and returns to the initial tempo for two pulses, while the guitar and keyboard perform an anacrustic gesture in sextuplets. I have notated this gesture as a separate 2/4 measure in the original tempo; thus, the resultant metrical profile of this example is an internal reordering and reinterpretation of the initial 6+5/5+6 cycle into two bars: a 4+3 bar in a slower tempo, and a 1+1 bar in the original tempo.

Mathematically, the two units represented by the systems in my transcription are not equivalent, as the initial theme comprises 44 sixteenths and the reinterpreted unit includes only 43 (in the original tempo); however, I hear a hesitation—which I have notated as a tenuto—at the end of the 7/4 bar as the band re-aligns in the original tempo that could explain the discrepancy. This hesitation could be due to the bewilderment of the band members at Portnoy’s pattern, which was apparently improvised and sounded like a mistake. If it was a mistake, it was a happy one, as the metric modulation remained on the Scenes From A Memory album. Also, the band performs the metric modulation in live renditions of the song, and it generates as much excitement from the crowd as the dynamic climax later in the form.

Complexity Independent of Motivic Transformation

The complexities that I have discussed thus far in this chapter—motivically-related metrical expansion, contraction, and reinterpretation—comprise the most commonly experienced temporal phenomena in Dream Theater’s music. However, there are other metrical complexities
that are also routinely heard in the band’s compositions that are not clearly related to thematic development. In this section, I describe three general types of motivically-independent metrical phenomena, including expansion with external addition (“extra beats/measures”), contraction with external subtraction (“dropped beats/measures”), and polymeter. I regularly perceive each of these general types when listening to a wide variety of genres of popular music (including even the most radio-friendly pop/rock); however, I usually hear them deployed differently in Dream Theater’s music, as the band tends to utilize them specifically toward the creation of surprising (and untraditional) non-isochronous meters. In this way, I hear a parallel between the band’s music and that of classic-era progressive rock.

**Metrical Expansion**

**Addition.** The most common type of motivically-independent metrical expansion that I hear in Dream Theater’s music involves the “external” (or post-thematic) addition of beats or full measures. In most cases, “extra” beats either expand the surface-level meter or create a single “extra” measure at the end of a riff, while the perceived cardinality of the hypermeter—which is typically four in Dream Theater’s music—is maintained. As with the thematically-related instances of metrical expansion in the band’s music, motivically-independent beat additions are usually heard at the end of the last measure of a four-bar unit, such that the hypermetric character becomes retrospectively interpreted as “1, 2, 3, 4, +.” This briefly-extended hypermetric profile can be observed in many types of popular music; however, Dream Theater’s beat additions typically involve the surprising undermining of previously-prominent pulse streams and/or the creation of non-isochronous surface-level meters.

One example of this phenomenon can be found in “The Great Debate,” during a Unison subsection that is part of an extended four-minute instrumental Conclusion that features guitar and keyboard solos (see Figure 4.23).

In the beginning of this example, a separately-tracked distorted guitar (which is doubled at the octave by the bass) performs a syncopated single-line accompaniment to the flashy keyboard/guitar melody that hints at the diatonic subdivision pattern 3+3+3+3+4. While the second bar of the forming quadruple hypermeasure embellishes the melody with sextuplets, I hear the riff as being essentially repeated four times. The monotony of this pattern is startlingly

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67 The only perceived change to the character of the hypermeter in these instances is that it becomes non-isochronous.
terminated at the end of the fourth iteration, however, as a random-sounding melodic ascent (which is performed in unison rhythm by the entire ensemble) is attached to the phrase, which moves the music toward the A-centric keyboard solo at 10:54. While I have notated the additional material as a self-contained measure with a different tempo in Figure 4.23 (with the previous eighth note pulse becoming the tactus), this example sounds to me as an unequivocal expansion of a single four-bar hypermeasure—I do not hear another hypermetrical downbeat until the beginning of the keyboard solo.  

\[ \text{Figure 4.23} \quad \text{External addition and hypermetrical expansion in “The Great Debate,” 10:43-10:54.} \]

The removal of hypermetrical isochrony by the added ascending gesture at the end of the phrase is somewhat disquieting; however, I believe that the related destabilization of the majority of the previously-held pulse streams—including those of the sixteenth note, quarter note, half note, whole note, and breve—is the primary agent of surprise in this example.

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68 My transcription shows one way of notating this passage, though another plausible alternative would be to interpret the added bar as a 3/8 measure with triplet sixteenths. One could also consider the added material to belong to the fourth bar, which would involve the surface-level expansion of the bar to an 11/8 grouping with a maximally-even 2+2+2+2+3 pattern. Regardless of the differences between each interpretation’s total number of measures in the phrase, the four-bar hypermeasure would remain intact.
Whereas the external addition in the example from “The Great Debate” does not involve a sense of arrival at a hypermetrical beginning (sounding instead as an expansion of a single quadruple hypermeasure), there are examples of addition from Dream Theater’s oeuvre that create the perception of “extra” hypermeasures and/or hyperbeats. One such example is the external addition heard during the Bridge section of “In the Name of God” from *Train of Thought*, which, combined with changes in texture and style, creates enough phenomenal accent to form a hypermetric boundary (see Figure 4.24).

![Hypermetric Labeling](image)

**Figure 4.24** External addition and hypermetrical expansion in “In the Name of God,” 6:55-7:34.
Many of the salient aspects of this example point to the heavy metal style, including harmony (a fifth-mode harmonic minor collection with a centricity of C is outlined with power chords), timbre (detuned bass and distorted guitars are used), rhythm (an aggressive drum pattern is performed, which includes double bass drumming during fills), and lyrical content (an anti-religion theme is prevalent, including the subversion of the pious lyrics to “Battle Hymn of the Republic” that was discussed in Chapter 3). However, a progressive element is heard after the initial two hypermeasures of this example: a radical style juxtaposition involving an allusion to a non-traditional popular genre (electronic dance music, or, following Butler’s abbreviation, “EDM”).

This juxtaposition accompanies the insertion of two “extra” measures, which sound as hyperbeats yet do not form a complete quadruple hypermeasure. The tactus-level pulse—which I have notated as a quarter note—is preserved throughout the insertion, and the quadruple surface-level meter continues to be projected; however, the extreme change in style and thinning of texture halt my perception of forward motion. Instead, I experience in the example a kind of temporal stasis, which informs my labeling of the hyperbeats in Figure 4.24 with parentheses and question marks. To me, this perception is highly ironic, considering that the inserted material—with its electronic drum machine timbres and, especially, its breakbeat rhythm—is undeniably a stylistic allusion to the rhythmically-driving genre of EDM, which serves principally as dance music.69

Metrical Contraction

Subtraction. The most common type of motivically-independent metrical contraction that I observe in Dream Theater’s music involves the external subtraction of beats or full measures. Though this type of phenomenon is not as common as thematically-unrelated expansion, it is still quite prevalent.

In his dissertation, Bowman refers to single “dropped beats” frequently, and accurately downplays their role in the signification of progressive rock, citing their use in The Beatles’ music.70 Popular music indeed abounds with “dropped beats” that are independent of motivic transformation, though it is important to recognize that these events typically maintain previously-held pulse streams as well as surface-level metric isochrony. This is especially true

69 This example possesses significant rhythmic similarities to the most famous and oft-sampled breakbeat in the history of EDM, the “Amen” break, which is transcribed and analyzed by Butler in Unlocking the Groove (78-80).
70 Bowman, Permanent Change, 96-98.
in the case of the “dropped measure,” a very common instance of external subtraction in popular music that can be heard in cases of hypermetrical elision. Dream Theater’s catalog includes several examples of this type of external subtraction, which typically serves to invigorate otherwise-repetitive musical contexts without drastically altering the listener’s perception of temporal linearity. One such example appears in the Introduction to the band’s hit single “Pull Me Under” from *Images and Words* (see Figure 4.25). In this excerpt, the well-established quadruple hypermeter is undercut by the “early” arrival of the first Verse section at 2:00, which causes the retrospective reinterpretation of the Introduction’s final hypermeasure as a triple grouping due to metrical deletion.

![Figure 4.25](image)

**Figure 4.25** External subtraction and hypermetrical elision in “Pull Me Under,” 1:52-2:00.

While similar examples of external subtraction on the hypermetric level abound in Dream Theater’s music, “dropped” beats and rhythms are heard more frequently on the surface level. As mentioned previously, these phenomena tend to result in the disruption of previously-held pulse streams and create non-isochronous meters that are typical of the progressive rock style. For example, the Link section to *Awake*’s “Lie” comprises a repeated (and slightly altered)

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71 Jocelyn Neal’s analyses of country music abound with discussions of hypermetrical irregularity—especially discussions of phrase overlap and elision, phenomena which involve hypermetrical reinterpretation—in what is traditionally perceived to be a metrically-“square” genre. See Neal, “Narrative Paradigms, Musical Signifiers, and Form as Function in Country Music,” *Music Theory Spectrum* 29/1 (2007): 41-73.
quadruple hypermeasure whose final bar—which is not motivically related to the previous material—is contracted by a random-sounding “dropped” beat division, which I have notated as an eighth note (see Figure 4.26).

![Figure 4.26](image)

**Figure 4.26** External subtraction and metrical contraction in Dream Theater’s “Lie,” 3:22-3:42.

This instance of subtraction, like the majority of the motivically-related examples I have discussed earlier in this chapter, sounds at the very end of the measure and the phrase. As such, I am almost able to hear a complete restatement of the previous quadruple-meter measures’ maximally-even 3+3+2 division-level syncopation, which leads me to interpret the truncated bar’s non-isochronous grouping as an uneven 3+3+1, rather than a well-formed rotation of 3+2+2. This type of temporal disruption lends a “progressive” tinge to the otherwise metal-dominated soundscape in the Link, which is created by the “heavy” sounds of Petrucci’s distorted and palm-muted power chords (performed on a seven-string guitar), the hard-hitting
pattern of Portnoy’s drums (which includes rapid double bass drumming at the level below the subdivision during the fill that leads into the subsequent Interlude section), and Myung’s open-stringed B0s (performed on a six-string bass).

Other Metric Complexities

Polymeter. A common type of motivically-independent metrical complexity in Dream Theater’s music that does not involve expansion or contraction is polymeter. Polymeter is a very identifiable aspect of Dream Theater’s sound, to the extent that musician-fans often characterize it by discussing this element exclusively. For example, I recently passed by an advertisement in Florida State’s Housewright Music Building from an unnamed guitarist who was looking for a drummer to complete a progressive metal band. This flier noted that one of the guitarist’s main influences was Dream Theater, and as such, auditioning drummers were informed that they “must be able to play polymetrically.” While this anecdote points to the importance of polymeter as a characterizing element in the band’s sound according to fans, a more convincing story was told to me by my colleague Sean Malone, who, in addition to serving as the bassist for the renowned metal band Cynic, has recorded with Dream Theater members Myung and Portnoy. During a rehearsal, Malone recalls Portnoy comically directing him to perform polymetrically: “you play in seven, I’ll play in eight, and I’ll meet you at the chorus.” This quotation only speaks to Portnoy’s knowing use of polymeter in one instance; however, I hear polymeter—specifically this type of large-scale cycle—in Dream Theater’s music frequently. Thus, I interpret Portnoy’s direction to Malone as providing insight into the band’s compositional approach—which, as I note in Chapter 3, is largely guided by the drummer.

London argues in Hearing in Time that listeners cannot actively attend to two or more metrical streams at the same time (similar to the familiar duck/rabbit problem shown by Wittgenstein), and thus claims that the idea of polymeter as a sounding phenomenon is psychologically baseless, proclaiming that “...there is no such thing as a polymeter.” London’s assertion is not that simultaneously-sounding layers are unable to be perceived as possessing different meters during separate listening occasions, but simply that listeners are unable to perceive of multiple meters in the same instant. Indeed, he agrees that in cases of prolonged metrical dissonance (e.g. West African Gahu music), listeners can “flip” back and forth between

74 Ibid., 50.
competing accentual streams and re-construe their metric “frameworks” in separate instants.\textsuperscript{75} As such, I don’t consider London’s perceptual argument against the existence of polymeter to be very significant. To me, the mere possibility of this type of “flipping” between meters within a given musical span constitutes polymeter. Butler agrees, defining polymeter as simultaneously-stated metrical types of equal strength, such that “two or more [metrical] interpretations are equally possible.”\textsuperscript{76}

Four types of polymeter are routinely discussed in the scholarly literature, each of which tracks three variables—beat units, beat divisions, and metric spans.\textsuperscript{77} One of these types involves layers which share the same beat unit yet possess different metric spans, which creates a phenomenon that Krebs designates as grouping dissonance.\textsuperscript{78} Krebs’s labeling of grouping dissonance (G) attends to the ratio of pulse streams in a polyrhythm (e.g. “G3/2” describes a 3:2 ratio on some durational level); a polymetric grouping dissonance specifically involves competing tactus-level streams (e.g. “G3/2” could label a situation in which measures of a triple meter are simultaneously projected with measures of a duple meter sharing the same beat unit). A second type of polymeter, which occurs when measures of the same span and beat unit are misaligned, is also discussed by Krebs, who labels the situation as “displacement dissonance” (D). Krebs illustrates displacement dissonances with the label Dx±y, where “x” represents the shared cardinality of the offset layers and “y” represents the amount of displacement between layers (e.g. “D8+1 (eighth note=1)” describes a situation in which two layers of eight eighth notes are offset by one eighth note). A third type—where layers share the same beat unit but possess different division units—is commonly referred to as polyrhythm or “mixed divisions,” but can sometimes be notated and/or heard as polymeter.\textsuperscript{79} A fourth type of polymeter involves layers which share the same metric span and beat division unit but possess different beat units, as

\textsuperscript{75} Ibid., 85.
\textsuperscript{76} Butler, \textit{Unlocking the Groove}, 136 (italics mine).
\textsuperscript{77} These polymetric types are often discussed in undergraduate music theory textbooks. One clear introduction to polymeter can be found in Clendinning and Marvin’s \textit{The Musician’s Guide to Theory and Analysis} (Clendinning and Marvin, \textit{The Musician’s Guide to Theory and Analysis}, 703), though much of this discussion was adapted from Stefan Kostka’s earlier textbook on twentieth-century music (Stefan Kostka, \textit{Materials and Techniques of Twentieth-Century Music}, 2\textsuperscript{nd} edition (Upper Saddle River, NJ: Prentice Hall, 1999), 119-122).
\textsuperscript{78} Krebs notes that his labeling follows the ideas of Yeston, whose 1976 work \textit{The Stratification of Musical Rhythm} was the first large-scale music-theoretical contribution to introduce the consonance/dissonance metaphor into theories of rhythm and meter (Krebs, \textit{Fantasy Pieces}, 17).
\textsuperscript{79} One example of notated mixed-division polymeter is the fourth variation in Handel’s \textit{Trois Leçons}, in which the left hand is notated in 3/4 while the right hand is notated in 9/8. For the majority of the variation, the layers do not sound polymetrically; however, the parts sound conflicting beat divisions near the cadence, which can be heard as metrically dissonant.
in a hemiola (layers share a cardinality of six divisions, but one layer groups these divisions into two beats with three divisions per beat while the other layer groups them into three beats with two divisions per beat). This type of polymeter has been described by Cairns (following Krebs) as “shared-cardinality grouping dissonance” (SCGD), as I have noted in Chapter 2.

These four polymetric types are not mutually exclusive, and are often heard in conjunction with one another: indeed, the main example of polymeter discussed in Clendinning and Marvin’s The Musician’s Guide to Theory and Analysis—Bartók’s “Song of the Harvest”—exemplifies both grouping and displacement dissonance. Accordingly, many examples of category-crossing polymeter can be observed in Dream Theater’s music. While there are more easily-classified examples than the ones I analyze in this section (such as triplet drum fills over a prevailing simple quadruple meter, which exemplify mixed-division polyrhythm), I don’t find them particularly interesting, they don’t differentiate Dream Theater’s music from that of other rock bands, and they aren’t as common in the band’s music as more complex polymetric events.

The most common polymetric phenomenon I hear in Dream Theater’s music can be described as SCGD on the level above the bar, which involves multiple simultaneously-sounding internal orderings of a given hypermetric span. The most common profile of this type is: 1) an initial state of alignment, as patterns begin on a shared downbeat; 2) metrical dissonance (usually between the drums’ pattern and that of the rest of the ensemble); and 3) dissonance resolution, either by “natural” re-alignment or via pattern alteration that leads to a new shared downbeat. The consequence of “hyper-SCGD” (which, as I have mentioned earlier in this chapter, can also be labeled as a cycle, following Horlacher) is necessarily hypermetrical grouping dissonance and surface-level displacement dissonance. For instance, a hypothetical 28-cycle divided into seven bars of quadruple meter in one layer and four bars of septuple meter in another contains hyperbeats of different lengths, which create instances of downbeat misalignment on the surface-level.

One example of hyper-SCGD from Dream Theater’s catalog can be observed during the Interlude section of “Fatal Tragedy” from Scenes From A Memory. The polymeter in this particular excerpt can be thought of as having been generated by a lower-level grouping dissonance, as the keyboard’s primarily triple (though truly diatonic) subdivision rhythm (3+3+3+3+2+2) chafes against the other instruments’ primarily quintuple grouping (5+5+5+5+4)

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to yield a 6:4 grouping dissonance on the level of the tactus (which I have notated as a quarter note). This specific situation is described by Butler as an “embedded grouping dissonance” (see Figure 4.27).  

Figure 4.27 Embedded grouping dissonance in Dream Theater’s “Fatal Tragedy,” 4:11-4:21.

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81 Butler, Unlocking the Groove, 158.
The metrical dissonance in this example eventually resolves, as the patterns align at 4:21 and begin to consistently project sextuple meter. As such, the section can be considered to possess SCGD on the level above the bar—or “polyhypermeter”—as well as grouping dissonance on the surface level.

In all, I retrospectively perceive four different groupings within the 24-cycle (see Figure 4.28). The first is a 6x4 grouping, which is projected by the keyboard on the level of the individual measure. I hear this level as that of the subtheme within the keyboard melody, which I group into a two-bar call-and-response theme. Since the call-and-response pattern is performed three times in the cycle (the initial riff is presented twice, with each iteration serving as a bookend to a high-register variation), this engenders the second grouping: a 3x8 configuration on the hypermetric level. The third grouping, 4x6, is projected by the distorted guitar, bass, and drums’ rhythmic figure on the surface-level. While I have marked the first and third iterations of this periodicity as being accented in a manner similar to that of the keyboard pattern in Figure 4.28, I do not hear an analogous call-and-response gestural configuration; rather, the third iteration is accented due to a change in texture, as Portnoy begins accenting the quarter-note pulse on his bass drum. This texture change divides the guitar/bass/drum layer into two equal parts, producing the fourth grouping of 2x12.

To me, this example’s hypermetric periodicities—the 3x8 and 2x12 groupings—are the most salient, and they obscure the surface-level metric alignment that takes place after the twelfth tactus-level pulse. Importantly, neither of these accentual patterns is created by a self-contained rhythmic unit; rather, they are formed by call-and-response gestural boundaries and texture change, respectively.

Another important aspect of this particular example is its formal function. Though both the preceding and subsequent subsections are nested within the same Interlude section, the excerpt does function as a transition—specifically as a metrical transition between states of quadruple meter and sextuple meter. This kind of metrical “dovetailing” is not uncommon in Dream Theater’s music, and is metaphorically similar to the period in which relay runners are simultaneously holding the baton during an exchange.

Cotner traces this practice directly to the classic prog era, as he analyzes a similar metrical transition in King Crimson’s “Larks.”

82 Indeed, I am only able to hear this alignment with significant effort.

83 A simple visual way of demonstrating this type of transition is the character pattern [A ->Æ -> E], with “A” and “E” representing different metrical states.
Tongues in Aspic, Part Two,” in which SCGD—specifically, a 20-cycle involving the simultaneous presence of a 4x5 pattern and a 5x4 pattern—is used to blur the boundary between sections in quintuple and quadruple meter.\footnote{This particular song is noted as being influential to Dream Theater, and the band recently recorded a cover of it that was released with the special edition of 2009’s Black Clouds and Silver Linings. Cotner argues that this specific type of transition is an example of the musical “formalism” that is typical of the U.K. bands’ approach to progressive rock (Bowman, Permanent Change, 116-120).}

![Diagram](image)

**Figure 4.28** Shared-cardinality grouping dissonance in Dream Theater’s “Fatal Tragedy,” 4:11-4:21.

Though the example of hyper-SCGD in “Fatal Tragedy” only lasts a mere ten seconds, the experience of it is quite perplexing. That said, there are examples of extended polymeter in Dream Theater’s catalog that prolong metrical dissonance to an even greater degree, resulting in a severe sense of temporal disorientation. One such example is the 68-cycle in the accompaniment to the keyboard solo from the subsequent track on Scenes From A Memory, “Beyond this Life,” which I have reproduced in Figure 4.29.
Figure 4.29 A 68-cycle in Dream Theater’s “Beyond This Life,” 8:26-8:46.
The Interlude of this song is profoundly “cyclic,” as the D-centric polymetric subsection is positioned as the third step in a harmonic cycle of minor thirds outlining a G# fully-diminished seventh chord throughout the section.\textsuperscript{85} The subsection’s accompanimental riff constitutes one of the two primary competing layers in the polymetric texture beginning at 8:26, as its alternating 9+8 division pattern chafes against the drums’ backbeat feel. While the guitar pattern divides into two similar subthematic units (both sharing eleven initial pitches), its true periodicity is seventeen divisions (which I have notated as eighth notes). This creates a grating dissonance against the quadruple-meter backbeat, such that the riff gradually becomes more and more misaligned with the drums’ downbeats, and sounds to me like a slowly-developing beat-class rotation procedure.

The least common multiple of the two patterns in this excerpt is 136 eighths; however, if the band allowed the “natural” metrical process (a 136-cycle) to unfold gradually at this tempo, it would probably hinder the subsection’s linearity (not to mention the difficulty it would present to the soloist, Rudess). One way Portnoy avoids this is by “homogenizing” his backbeat, such that there is no discernible difference between beats one and three (or beats two and four). This creates a true periodicity of four eighths in the drums, which seamlessly ends the cycle at its midpoint and preserves a normative quadruple hypermeter in the guitar/bass layer on the two-bar level.\textsuperscript{86}

Another noteworthy aspect of this subsection is the keyboard solo, which features heavy chromaticism and uses a strange-sounding (and perhaps Frank Zappa-inspired) trumpet synth patch. For the majority of the solo, Rudess sounds as if he is ignoring the metrically-dissonant guitar and bass pattern, as his melodic ideas are neatly grouped by the drums into four-beat units. However, at the very end of the cycle, Rudess alters his course and performs the section’s riff in unison with the guitar. Thus, while the guitar/bass layer is dissonant with the drums layer throughout the subsection, Rudess’s solo can be interpreted as mediating between the two extremes, affording the otherwise-disorienting cycle a degree of continuity.

**Metric Modulation.** While it is most typical for metric modulation to be employed for the purposes of concurrent thematic and metrical reinterpretation in Dream Theater’s music (as

\textsuperscript{85} The minor-pentatonic guitar riff of the D-centric subsection (which is doubled an octave lower by the bass) is a transposed repetition of the same material from the previous B-centric section; as well, this riff is eventually reiterated with an F centricity at 8:46.

\textsuperscript{86} I have chosen to notate the drum pattern as eight-and-a-half bars of 4/4, however, as there is no evidence contradicting the interpretation of the initial feel as a traditional quadruple-meter backbeat.
discussed earlier in this chapter), there are nonetheless examples of the technique that operate independently of motive. One such example can be heard during the transition between the Introduction and Verse sections of “The Slaughter of the Damned,” the fourth movement of the suite “In the Presence of Enemies.”

The Introduction begins with a clear compound duple pattern (which I have notated as 6/8 in Figure 4.30), whose weak beats are accentuated in the manner of a backbeat by both the snare drum and the punctual, unpitched “Hey!” exclamations of a group of sixty Dream Theater
fans that were invited into the studio to chant on the tracks “Prophets of War” and “In the Presence of Enemies, Pt. II.” At 6:16, the “pivot pulse” of the metric modulation appears in the “heavy”-sounding distorted guitar and six-string bass parts, which divides the dotted-quarter tactus into two equal parts; as such, this pulse can be considered to create mixed divisions/polyrhythm with the drums and fan chants.

In the final bar prior to the Verse, Portnoy performs a tom-tom fill that takes up the polyrhythmic pulse of the guitar and divides it into three equal parts—a division that maintains, yet regroups, the sixteenth note. This faster pulse—which is also accented by Myung’s higher-register D2 sixteenths—becomes clearly reinterpreted as the tactus in the subsequent bar by Portnoy’s backbeat, and the clear triple division of this tactus by the guitar and bass (as well as the bass drum) point to a newly-formed compound quadruple meter in “double time.”

Overall, this metrical modulation is quite deliberate and smooth, as it consists of: 1) an initial state of metric stability; 2) an introduction of a pivot pulse—whose 2:3 division ratio shares the duration of the subdivision and is quite common in compound-metered rock music—in only part of the overall texture; 3) a full-textured accentuation of the pivot pulse; and finally, 4) the reinterpretation of the pivot pulse as the new tactus. Further clarity is afforded by the isochrony on both “sides” of the modulation, as well as the lack of prominent syncopation in the Verse. Thus, while this example does not possess a direct relationship between motivic and metrical transformation, it is still imbued with a significant degree of continuity.

Conclusion

The metrical phenomena that I have discussed in this chapter do not represent all of Dream Theater’s complex rhythmic techniques, solely those I have perceived most frequently during my fifteen years of listening experience with the band’s music. However, I believe that these complex—and often long-range and/or motivically-related—metrical practices differentiate

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87 Dream Theater, Chaos in Progress: DVD documentary.
88 Another plausible way to notate this section is with separate 2/4 time signatures in the melodic instruments. Also, one could maintain 6/8 time signatures in all voices but notate the guitar and bass rhythms as duplets. However, Petrucci’s re-attacked D3s at the end of each beat sound as true subdivisions in 6/8; thus, I have chosen to notate all of the parts in the excerpt in 6/8, showing the polyrhythms as dotted-eighths in the guitar and bass parts with duple beams.
89 I have chosen to notate the double-time section in 12/16 rather than the normative 12/8, as this time signature shows the maintenance of the rhythmic values from the previous section more clearly.
Dream Theater from other groups that are considered to be heavy metal bands, and are representative of a significant influence from the progressive rock style. Therefore, I believe they are paramount to the band’s overall sonic profile, which I conceive of as possessing a prog center and a metal periphery.
Traditionally, one of the primary goals of scientific analysis has been to break complex wholes into their constituent elements for easier examination. In Chapters 3 and 4, I have broken apart Dream Theater’s musical style into discrete stylistic elements and mapped them onto the parent styles of progressive rock and heavy metal. However, this analytical procedure has not adequately described the ways in which the band manipulates and synthesizes these elements in their syncretic style of progressive metal music. Indeed, this procedure represents only one of (at least) two crucial steps in a good musical analysis, which should also proceed to a consideration of the ways in which such elements are combined to create wholes. This chapter represents this second step.

In this chapter, I address the stylistic and structural content—as I perceive it—of two well-known examples from Dream Theater’s catalog: “Sacrificed Sons” from *Octavarium* and “Constant Motion” from *Systematic Chaos*. In my analyses, I demonstrate how both songs can be considered representative works of Dream Theater’s music (and of the subgenre of progressive metal as a whole), noting their appropriations and tropes of stylistic elements from both progressive rock and heavy metal. Additionally, I focus on a few individual formal sections from each of the songs (namely, the first subsection of the contrasting instrumental B section of “Sacrificed Sons,” as well as the Introduction and Conclusion sections of “Constant Motion”), each of which contains complex metrical phenomena typical of both twentieth-century concert music and progressive metal.

### “Sacrificed Sons” (2005)

Dream Theater’s “Sacrificed Sons” is the seventh and penultimate track on the 2005 album *Octavarium*, which, as discussed in Chapter 1, is an overtly prog-inspired release that guitarist John Petrucci claims to be the band’s most representative work. While “Sacrificed Sons” precedes the more blatantly “progressive” title track (which is rightly considered to be the magnum opus of the album, as it lasts for twenty-four minutes and is composed of five
movements), its duration is almost eleven minutes, which, combined with the weighty subject material of its lyrics (the attacks of September 11th, 2001), marks the song as an “epic.” Additionally, the song incorporates a sixteen-piece orchestra, which adds to its grandiosity and specifically marks it as prog-inspired. However, there are distinctive metal traits that emerge throughout the song’s form, resulting in a stylistically balanced sound that I hear as representative of Dream Theater’s overall sonic signature. The form of “Sacrificed Sons” is outlined in Figure 5.1.¹

<table>
<thead>
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<th>Timestamp</th>
<th>Overall Form Label</th>
<th>Specific Form Label</th>
<th>Key/Centricity/Harmony</th>
<th>Meter</th>
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<td>A</td>
<td>Quotation Collage</td>
<td>e</td>
<td>Underdetermined</td>
</tr>
<tr>
<td>0:57</td>
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<td>Introduction</td>
<td>e</td>
<td>Compound Duple</td>
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<td></td>
<td></td>
<td>(6/8)</td>
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<td>1:16</td>
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<td>Verse 1</td>
<td>e</td>
<td>6/8</td>
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<tr>
<td>1:55</td>
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<td>Transition</td>
<td>[C-D] → e</td>
<td>6/8</td>
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<td>Link 1</td>
<td>e</td>
<td>6/8</td>
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<td>e</td>
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<td>Link 2-Extended</td>
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<td>5:04</td>
<td></td>
<td>Interlude 1 / Keyboard</td>
<td>e → f#</td>
<td></td>
</tr>
<tr>
<td>5:45</td>
<td>B</td>
<td>Solo/Guitar Solo</td>
<td>e → f#</td>
<td></td>
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<td></td>
<td></td>
<td>e → f#</td>
<td></td>
</tr>
<tr>
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<td>Unison</td>
<td>[b-C-e-D] → e</td>
<td>6/8</td>
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<td>Chorus 2</td>
<td>[C-D] → e</td>
<td>6/8</td>
</tr>
<tr>
<td>8:56</td>
<td></td>
<td>Link 3-Extended</td>
<td>e</td>
<td>6/8</td>
</tr>
<tr>
<td>9:29</td>
<td></td>
<td>Conclusion</td>
<td>e</td>
<td>Simple Sextuple</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(6/4) → 6/8</td>
</tr>
</tbody>
</table>

Figure 5.1 An outline of the overall and specific form of Dream Theater’s “Sacrificed Sons.”

¹ The terms “overall form” and “specific form” are differentiated by Endrinal in his dissertation: overall form is defined as “the large-scale organization of a song, usually consisting of a small number of large sections, each of which are made up of smaller sections,” whereas specific form refers to an outline of the individual (smaller) sections that ultimately comprise the song’s larger, overall design (Endrinal, Form and Style in the Music of U2, 151-152).
The song begins with a minute-long introductory quotation collage consisting of eight excerpts from actual news broadcasts covering the attacks of September 11th. Static sounds are heard between each excerpt, providing the listener with an ominous representation of someone changing television channels only to see the same tragic story on every station. Further adding to the musical imagery is the faint sound of an “exotic” stringed instrument in the background, which is perhaps intended to evoke a relationship between the Middle Eastern world and the attacks. I hear this opening section as atypical of the heavy metal song style, which often contains short instrumental Introductions (or eschews Introductions completely).

The short section that follows is a more typical instrumental Introduction composed of a sparse four-bar piano solo that is repeated with the addition of the drums and bass. The initial four bars of this section include the first metrical ambiguity in “Sacrificed Sons” (see Figure 5.2). The piano solo can be heard as accenting a triple meter (which I have notated as 3/4), with its first articulated pitch sounding on the downbeat; however, the entrance of the bass and drums clarifies the song’s predominant compound duple meter (which I have notated as 6/8), and causes the piano pattern to be heard retrospectively as syncopated, and as beginning on a rest. The section thus serves as a clear example of a “bar line shift” reinterpretation, the type of pattern that Butler labels as “turning the beat around.”

As Spicer notes in his dissertation, this type of “accumulative” opening is quite common in pop/rock music, and routinely engenders the experience of emergent clarity: “when the groove ultimately does crystallize, it sounds like it has ‘emerged’ out of a state of rhythmic, metric and/or tonal confusion.” London has also noted the preponderance of such “metric fake outs” in popular music Introductions, and has compiled a list of examples with the help of several other popular music theorists, including Spicer, Everett, and Covach.

The use of a solo piano Introduction in a song form is atypical in the heavy metal genre, though it occurs quite frequently in progressive rock. While this forms an admittedly weak correlation between “Sacrificed Sons” and prog, Dream Theater’s use of a tonal chord progression that moves from tonic through the predominant to the dominant (i – idim – V7b9/V

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2 Spicer, *British Pop-Rock Music in the Post-Beatles Era*, 97. Spicer uses the designation “accumulative” to describe formal section-level textural “build-ups,” reserving the term “cumulative” to denote opus-level ‘build-ups.’ However, he notes that section-by-section accumulative processes can sometimes be interrupted and span an entire song, generating a type of large-scale cumulative form.

– V7) within this section of the song can be considered a compelling reference to “classical” music, which in turn creates a stronger parallel with progressive rock, as the use of tonal progressions is well documented within the style.

Figure 5.2 Bar line shift reinterpretation in the Introduction of “Sacrificed Sons,” 0:57-1:16.
LaBrie and Petrucci enter at 1:16, initiating the first Verse section, which lasts for sixteen measures. While all of the band members are playing during this section, the sparse texture continues, which is created by the piano’s chordal arpeggiation, the guitar’s sustained chords, and the bass’s long rhythmic durations. Additionally, LaBrie’s breathy vocal timbre combines with the guitar’s clean and delay-effected tone to result in a relative lack of intensity. One correlation between this section and the progressive rock style is the presence of a vocal melody with piano accompaniment. While this texture and instrumentation is certainly not exclusive to prog, it is far more common with that style than with metal. Additionally, the root motion in fifths between the harmonies at the end of the accompaniment supporting the second and fourth lines of text (VI-II-V-[I]) is far more typical of prog rock than metal (see Figure 5.3).

![Figure 5.3 A lead sheet-style representation of “Sacrificed Sons,” Verse 1.](image)

The following eight-bar Transition section decreases the intensity of the song to a further extent, as it includes breathy and falsetto vocals, as well as a harmonic rhythm that is half as fast

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4 Typically, Transition sections connect Verses to Choruses (hence the colloquial label “Pre-Chorus,” which is often applied to these sections by musicians) and feature harmonic instability (Endrinal, *Form and Style in the Music of U2*, 152). While this section essentially connects a Verse to another Verse, it does possess relative harmonic instability and motion compared to the primarily static Verse sections.
as that of the Verse. Petrucci’s prominent use of an E-bow, an electronic device producing sustained sounds similar to bowed string instruments, combines with the guitar’s heavily effected synthesizer-like timbre to create a decidedly prog rock sound in this section.

Prior to Verse 2, an eight-bar Link is heard, which features the song’s musical hook. I hear this theme as highly intertextual, referencing the 1980 song “Ants Invasion” by the New Wave band Adam and the Ants, as well as the Conclusion to The Beatles’ “I Want You (She’s So Heavy)” from the 1969 album Abbey Road. Specifically, it sounds as if Dream Theater reworked the hook from “Ants Invasion” in “Sacrificed Sons” by placing it in a different tempo and meter—that of “I Want You (She’s So Heavy)” (see Figures 5.4, 5.5, and 5.6). Additionally, the harmonic emphasis on the submediant and supertonic harmonies, the rhythmic pattern, and the heavily-effecte guitar arpeggiations in the hook’s turnaround strengthen the correlation to The Beatles’ song. The allusion to—and hybridization of—these two disparate pop/rock traditions in the creation of a musical theme is a distinctly “progressive” element in this section. Also, the band’s use of meter as a primary agent of development points to its prog influence. Furthermore, Rudess sounds the hook with a portamento synthesizer timbre in this Link section, which is created by the Continuum Fingerboard instrument that was discussed in Chapter 3; this “spacey” timbre is very reminiscent of the synth tones that characterize progressive rock.

![Figure 5.4](image)

**Figure 5.4** The musical hook from “Sacrificed Sons.”

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5 Additionally, the harmonies essentially outline the clichéd VI-VII-i pop progression in this section, which is atypical of heavy metal.

6 I initially made the connection to “She’s So Heavy” myself, though the reference to “Ants Invasion” was only understood after reading an online analysis by a fan with the username “xtraverse” (“Octavarium Analysis;” available from [http://dt.spatang.com/octavarium.php](http://dt.spatang.com/octavarium.php): Internet; accessed 23 February 2009).
Up until this point in the form of “Sacrificed Sons,” there have been several salient musical elements that have created correlations to the progressive rock style, and none that have formed associations with heavy metal. However, in the abbreviated eight-bar second Verse section, there are changes in texture and timbre that engender a heavier, more “metal” sound. In particular, the texture thickens via the introduction of a busier, louder drum pattern that includes more frequent bass drum attacks, as well as a more rhythmically-active bass line. More importantly, the salient use of a distorted, tremolo-picked wah-wah guitar timbre that doubles LaBrie’s vocal line (which now possesses an aggressive, growling tone) creates a strong stylistic parallel to heavy metal. These musical elements create an intensification leading into the first Chorus, which appropriately mimics the lyrics’ increasingly morbid tone (“Towers crumble, heroes die”).

One significant and atypical feature of the Chorus section to “Sacrificed Sons” (which is reproduced in Figure 5.7) is that it repeats the harmonic progression from the Transition. However, this section can still be considered to conform to the general elements of Chorus sections in popular songs, as it contains new lyrics, is repeated later in the song with the same
text, and contains the refrain “All praise their sacrificed sons.” Other musical elements separate the Chorus from the Transition as well, such as the use of guitar distortion, three-part vocal harmonies, frequent crash cymbal attacks, and, most saliently, the introduction of an orchestral backing. All of these elements contribute to a denser musical texture, and the prominent use of an orchestra creates a stylistic reference to concert music, and thus to progressive rock.

Chorus I

\[
\begin{align*}
&\text{C} \quad \text{Who would wish this on a people} \\
&\text{C} \quad \text{And proclaim that His will be done} \\
&\text{C} \quad \text{scriptures they heed have misled them} \\
&\text{C} \quad \text{all praise their sacrificed sons all praise their sacrificed sons}
\end{align*}
\]

**Figure 5.7** A lead-sheet representation of the Chorus to “Sacrificed Sons.”

Following the first Chorus is a developed return of the hook in the second Link section. Here, the hook is repeated and altered, increasing in intensity and leading into the B section’s first instrumental Interlude section. The continued use of the orchestra, which now moves into the musical foreground, prolongs the prog rock influence here; however, the distorted guitar timbre (which includes palm-muted power chords), combined with the loud drum pattern (which

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7 The major aspects of Chorus sections are outlined by Endrinal’s glossary definition in Appendix B of his dissertation (Endrinal, *Form and Style in the Music of U2*, 150).
features frequent crash cymbal attacks and aggressive fills), creates a soundscape more reminiscent of heavy metal. I hear the clear presence of these dual stylistic influences within the second Link as being accurately representative of the progressive metal subgenre. Other notable alterations to the hook upon its repetition include the ascent to a major sixth above tonic in the melody (creating, to my ears, an octatonic sound), and the addition of a power chord built on the lowered-second scale degree at the very end of the section, which generates a more intense “drive” to tonic.

The contrasting B section of “Sacrificed Sons” is completely instrumental, and can be perceptually parsed into three discrete sections based on thematic content, harmony, meter, and other domains. The first of these three sections, which I label “Interlude 1,” is the most metrically complex, and comprises an exposition of two primary riffs followed by a keyboard solo and a guitar solo over these riffs. Many of the musical elements in the first Interlude point to the heavy metal style, including the distorted timbre of the bass, the distorted wah-wah guitar part (which includes “shred guitar” techniques such as whammy-bar tremolo and “dive bombs,” two-handed tapping, and both natural and artificial “pinch” harmonics), and the distorted guitar patch used by the keyboard in the first half of its solo. However, the instances of “metrical constructedness” are to me the most salient aspects of this section, and the compositional technique involved—using meter as the primary agent of thematic development—is considered a hallmark of the progressive rock style.

Each of the two prominent riffs from Interlude 1 is shown in Figure 5.8. The two-bar “disjunct” Riff A is initially presented twice during John Myung’s distorted bass solo beginning at 4:13, and is repeated four more times with the full ensemble (sans-orchestra) before a transition into the presentation of the “compressed” Riff B. While the initial meter (which, though it is not unequivocally stated, I have notated as 6/4) is not usurped before the transition to the second riff, the accentual pattern of the drums reverses four bars after entering, moving from

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8 I hear this harmonic progression (B5 → F5 → E5) as a heavy metal trope of the tritone substitution in jazz and early twentieth-century popular music, in which a dominant-seventh chord built on the lowered supertonic—a tritone away from the dominant—substitutes for V7, sharing the chordal third and seventh as common tones.

9 Since this section is entirely instrumental, I consider it to be a three-part Interlude, rather than a Bridge—a term I reserve for texted contrasting sections, as noted in Chapter 4.
regular accents on odd-numbered beats to regular accents on even-numbered beats, creating a typical backbeat feel.\textsuperscript{10}

\textbf{Riff A ("disjunct"):} E pedal with syncopated chromatic descent.

\textbf{Riff B ("compressed"):} F\# Phrygian riff with chromatic passing tone and mixed meter.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5_8.png}
\caption{Primary riffs from “Sacrificed Sons,” Interlude 1.}
\end{figure}

A more jarring accentual shift occurs during the transition to Riff B. Here, Riff A continues beyond its expected four-bar hypermetrical unit, at which point it is forcibly truncated and mutated until it no longer resembles itself, leaving space for the exposition of Riff B. This combination of motivic fragmentation, metric contraction, and transitional function generates a clear example of what I have discussed in Chapters 2 and 4 as metrical liquidation. A transcription of the transition is produced in Figure 5.9.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5_9.png}
\caption{Metrical liquidation during the transition between Riffs A and B of “Sacrificed Sons,” Interlude 1.}
\end{figure}

\textsuperscript{10} The metric ambiguity of Riff A is due to both its highly syncopated melodic descent and its twelve-pulse span, which combines with the initial duple periodicity of the accompanying drum pattern to allow for several plausible groupings (including two groups of six beats, six groups of two beats, and three groups of four beats). This potential for reinterpretation is realized by the band throughout the song in the subsequent iterations of the riff, as I demonstrate in my analysis.
Another complex metrical phenomenon can be heard during the exposition of Riff B. After its initial presentation, this theme is repeated seven times, creating a subsection of sixteen measures within the thematic exposition. However, the riff undergoes development immediately, with motivic and metric alterations sounding during the “tail” end of every other presentation—that is, the weak hyperbeats on the two-bar level (see Figure 5.10, which reproduces the entire exposition of Interlude 1). The first alteration (transcription mm. 20-21) is repeated exactly in mm. 24-25, and involves the addition of a single F#2 passing tone eighth note to the end of the riff, creating two bars of simple quadruple meter in place of the previous mixed pattern (which I have notated as 4/4+7/8). This procedure is heard again in the following four iterations of the theme that serve to close the exposition (mm. 26-35 of the transcription).

However, the procedure heard at the close of the exposition is intensified with metric expansion-related additions of motivic residues\(^{11}\) from Riff A at the end of every fourth bar. Since the first residue-addition adds a single 3/8 bar to the end of the hypermeasure, and the second adds two residues, creating a 6/8 bar, an ABAC metrical scheme can be heard in this subsection on the surface and hyperbeat levels.\(^{12}\) On the surface level, the metric design is not consistently additive or subtractive, as the pattern sounds as A (8 eighths), B (7 eighths), A (8 eighths), C (11 eighths), followed by A (8), B (7), A (8), C (14).\(^{13}\) However, on the 2-bar hyperbeat level, the pattern is A (15), B (19), A (15), C (22); thus, on this level, the close of the exposition articulates an ABAC additive metrical process (ABAC-AMP), which, as I have noted in Chapter 4, lends a quasi-minimalist tinge to the experience of the music.

\(^{11}\) Schoenberg describes “residues” as motivic remnants of the liquidation process (Schoenberg, *Fundamentals of Musical Composition*, 58-63).

\(^{12}\) I have notated the fourth hyperbeat in each hypermeasure here as two separate measures (4/4 + 3/8, for example), as I hear the residue bars as possessing definitive downbeat accents. However, I do hear them as belonging to—and extending—the same “hyper-upbeat” as the 4/4 bars, resulting in the “1, 2, 3, 4, +” hypermetric scheme that is characteristic of Dream Theater’s music.

\(^{13}\) After presenting this research at the Sixth Biennial International Conference on Music Since 1900 at Keele University on July 3\(^{rd}\), 2009, Roger Dean and others called to my attention the possibility of hearing Riff B as a 6+9 pattern (rather than an 8+7 pattern), based on the accentual profile of the keyboard. While I hear the drum pattern as grouping the melodic instruments more readily, this alternate hearing would preserve the ABAC-AMP on both one- and two-bar levels.
Figure 5.10  The thematic exposition of “Sacrificed Sons,” Interlude 1 (4:12-5:03).
Dream Theater’s use of an additive metrical process is not the only reference to minimalism that can be heard during the first Interlude section of “Sacrificed Sons,” however. Another example is its use of Reich’s rotation technique (discussed in Chapter 4), which can be observed during the next subsection, Rudess’s keyboard solo (beginning in m. 36 of the transcription). Here, Riff A is rotated “backward” one eighth note (or, perhaps, “forward” twenty-three eighth notes), resulting in an emphasis on E3 at the beginning of the theme (see Figure 5.11). This backward rotation is the only instance of its type that occurs in the song; thus, Dream Theater’s use of the rotation technique is but a brief, superficial parallel with minimalism, rather than a structurally-significant process. However, the rotation acts in conjunction with the ABAC additive metrical pattern to result in a stronger sense of stylistic allusion in the song.

![Figure 5.11](image)

Figure 5.11 The Reich-like rotation/beat-class transposition of Riff A in “Sacrificed Sons.”

In addition to being subjected to the rotation technique in the beginning of the keyboard solo, Riff A also undergoes metrical reinterpretation in this subsection, as its initial 6+6 (or

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14 The rotation technique can also be heard at the beginning of the guitar solo (transcription m.64), as this presentation of Riff A is repeated.
15 Interestingly, this riff alternates between syncopation and strong-beat emphasis so frequently that the beat-class rotation does not result in a drastic or disorienting change of emphasis as one might expect from an eighth-note rotation in a simple meter.
2+2+2+2+2+2) accentual pattern is internally reordered as 4+4+4 by the drums’ half-time backbeat feel.

This pattern ceases at 5:19, as Rudess begins performing a solo over Riff B, which is metrically developed to a further extent than previous iterations. Here, the ABAC pattern becomes pervasive, sounding on the one-, two-, and four-bar levels.\(^\text{16}\) Once again, this process involves the patterned addition of both the “extra” F#2 passing tones and the motivic “residues” from the earlier liquidation of the “disjunct riff.” I have formatted my transcription in Figure 5.12 to demonstrate these three levels of additive process (which are shown horizontally), while at the same time clearly showing an ABAC-AMP involving the residues themselves (which is shown vertically). While this “vertical” pattern shares the same structure as the “horizontal” pattern, I hear it as a separate process with a separate goal—specifically, the reinstatement of the “disjunct” Riff A, which materializes immediately following the excerpt. This process is very audibly differentiated from the “horizontal” one, via motivic content, accentuation, and especially meter, as the residues are presented in compound groupings.

Overall, I consider the simultaneous experience of the “horizontal” and “vertical” progressions within this subsection of Interlude 1 to be an example of what Kramer calls “multiply-directed time.” In this case, the goals of the hypermetrical downbeat and the continuation of Riff B are repeatedly evaded every fourth bar (however temporarily), as the Riff A residues interrupt and additionally project a new dotted-quarter note tactus. These interrupting residues, however, possess their own linearity, as they accumulate and progress toward the reestablishment of Riff A at 5:45. As such, the overall sound is metaphorically similar to the experience of a television viewer who is attempting to track the unfolding plots of two programs simultaneously by changing channels repeatedly (and in a very consistent pattern).

\(^\text{16}\) Again, the ABAC-AMP does not sound on the surface level here, unless one hears Riff B as a 6+9 grouping instead of the 8+7 pattern I have notated in my transcriptions. Hence, I have added asterisks to the surface-level “B” labels in Figure 5.12 below.
Figure 5.12 Multiply-directed time in the guitar/bass accompaniment to the keyboard solo in “Sacrificed Sons,” Interlude 1 (5:20-5:45).

Petrucci’s squealing, metal-influenced guitar solo over Riffs A and B follows, and while it includes examples of addition-related metrical expansion and beat-class “rotation,” these have all been presented earlier in the Interlude; thus, I hear this solo section as regressing with respect to rhythmic and metric complexity. However, an interesting metrical transition is heard in the measure leading into the Unison section (see Figure 5.13). Here, there is a conflation of the pitch and rhythmic material from Theme B and the compound metrical pattern of the following section. Specifically, four eighth notes are added to the terminal position of the riff, which lead smoothly into the following section’s centricity of B minor. This addition accompanies a
grouping expansion to twelve eighths, which are simultaneously ordered as three groups of four (by the guitar solo) and four groups of three (by the drums and accompaniment), resulting in an instance of shared-cardinality grouping dissonance.\(^{17}\) While the duration of the eighth note remains constant during the transition, the overall pulse slows down; this creates a more gradual segue into the even slower 6/8 feel during the Unison, in which the previous eighth note pulses are recast as beat subdivisions rather than divisions.

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Figure 5.13 The accompaniment to the guitar solo in Interlude 1, including the metrical transition into the Unison subsection (5:45-6:23).

The eighteen-bar middle section of the B section to “Sacrificed Sons”—which I have labeled as a Unison section due to the clear unison melody presented by the guitar and strings—

\(^{17}\) I have notated the passage in 12/8, as I hear the drums’ accentual pattern as primary in this measure.
functions as a “simplifying” or “relaxing” contrast to the first Interlude. The simplification heard during this section is provided primarily by the return to periodic meter, though the relatively long duration of the underlying pulse also contributes to a more relaxed experience on behalf of the listener. Timbral elements also help create a tranquil feel within this section, such as the clean piano patch, the spacious delay-effected guitar tone, and the return to an orchestral backing. These tone colors are typical of the progressive rock genre, and thus return the overall sound away from the intense and powerful metal-inspired sounds of the first Interlude.

Concluding the large, tripartite B section of “Sacrificed Sons” is the second Interlude, whose sonic character returns to heavy metal-inspired intensity. Aiding in this interpretation are Petrucci’s squealing, distorted, and whammy-barred harmonics, the palm-muting of Riff C (see Figure 5.14), and the shrieking string tessitura that accompanies the end of Riff D\(^{18}\) (see Figure 5.16) and leads into the third Verse. Prog-inspired metrical phenomena are also featured in this section, such as the hemiola involving Riff C, wherein the riff’s initial 2+2+2 grouping of eighth notes is recast as 3+3.\(^{19}\) This riff subsequently undergoes metrical reinterpretation at 7:17, as it is repeated atop a consistent compound quadruple pattern in the drums (I would notate this as 12/8), which reorders the previously-mixed 3/4+3/4+3/4+6/8 pattern.

Many fans additionally hear an intertextual reference during the second Interlude.\(^{20}\) Specifically, they point to the beginning of Theme C as a metrically-developed reworking of the children’s song “Teddy Bears’ Picnic,” which was initially written by John Walter Bratton in 1907. While I fail to hear this convincingly, there are similarities in the domains of pitch and rhythm. Also, when Theme C is reinterpreted into compound meter at 7:17, the correlation strengthens considerably.

The developed return of the Verse section at 7:50 places the music fully within the stylistic sphere of heavy metal. The most salient development within the third Verse is the addition of loud, palm-muted, off-beat power chords in the guitar part, which additionally contains squealing, distorted harmonics. Also creating a more “metal” sound in this section is

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18 Riff D can be heard as a pitch transposition of the “tail” of the musical hook of the song, and thus is reminiscent of the Conclusion of The Beatles’ “I Want You (She’s So Heavy).”
19 One such instance of this hemiola can be heard at 7:04.
20 I initially became aware of the reference at the “Octavarium Analysis” webpage created by user “xtraverse,” however, many more fan sites, such as www.dreamtheater.com, www.mp.com, and http://antipyromaniacs.wetpaint.com/page/Dream+Theater?t=anon have attested to the allusion.
LaBrie’s wailing tone, which proceeds to a vibrato-laden growl as he sings the end of each line of text.

\[ j = 144 \]

Electric Guitar (w/ dist.)

\[ \text{P.M.---} \]

\[ \text{P.M.---} \]

\[ \text{Figure 5.14} \] Theme C from “Sacrificed Sons,” Interlude 2.

\[ j = 72 \]

\[ \text{Em} \]

\[ \text{Figure 5.15} \] The beginning of “Teddy Bears’ Picnic,” transposed to E minor.

\[ j = 57 \]

\[ \text{N.C.} \]

\[ \text{Figure 5.16} \] Riff D from “Sacrificed Sons,” Interlude 2.

The third Verse is immediately followed by the second Chorus section, which, as is typical of Chorus sections, sounds like a near-exact repetition of its first presentation. However,
there are a few notable changes, such as the section’s increased tempo, more active drum part, and louder overall volume.

The third Link section contains the final statement of the musical hook in “Sacrificed Sons,” which is again extended to sixteen measures and performed by the Continuum and orchestra. However, there are also instances of development here, most audibly the inclusion of text (“God on high…”). I hear this section as the climax of the entire form, due to the high-range, multi-tracked vocal harmonies, the extremely dense texture, and especially LaBrie’s metal-influenced Phrygian $3\cdot b2\cdot 1$ descent before the Conclusion section, whose “melodic gravity” toward tonic increases the sensation of arrival and closure on the downbeat initiating the subsequent formal section.

The instrumental Conclusion of “Sacrificed Sons” recalls and develops themes from the large B section, including Riffs A, C and D. Riff A is presented twice, and is once again developed metrically. In the first presentation, Portnoy plays in triple meter (thus reordering the riff’s twelve beats into four equal units), which sounds polymetrically against the theme’s sextuple (or duple) grouping. In the second presentation, Portnoy plays a half-time quadruple meter pattern, which reorders the riff’s beats into three equal units of four. While this drum pattern was already heard during the beginning of the keyboard solo in Interlude 1, it initially supported the “rotated” version of Riff A, whereas this iteration supports the original riff—as such, I hear it as a “new” development of the theme. Overall, Riff A is presented in six different rhythmic and metric contexts in “Sacrificed Sons” (see Figure 5.17).

After Riff A is presented and developed, Riff D is restated multiple times at different pitch levels atop a bombastic drum solo by Portnoy, eventually leading to the final presentation of Riff C, which alternates between simple triple and compound duple meters before satisfactorily concluding the song on a projected downbeat. An interesting harmonic event leads into this final chord: the guitar plays a power chord on F, while the strings sound octaves on the leading tone D#. This chromatic enclosure of the goal tonic creates the most intense pull toward harmonic closure in the entire song, engendering a heightened sensation of finality upon the arrival of the power chord on E in the next bar. I hear this cadential material as a microcosm of the entire work, at once representing stylistic elements of progressive rock (in this case, the use of strings performing a leading-tone that resolves upward to tonic, reminiscent of tonal voice-
leading) and heavy metal (a heavily-distorted power chord resolving down a semitone to tonic, evoking the Phrygian sound associated with many heavy metal riffs).

<table>
<thead>
<tr>
<th>Formal Location</th>
<th>Timestamp</th>
<th>Version of Riff A</th>
<th>Beats Accented by Snare Drum</th>
<th>London-style Metric Diagram showing Snare Drum Attacks (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-textured entrance at the beginning of Interlude 1</td>
<td>4:20-4:29</td>
<td>Original</td>
<td>1/3/5/7/9/11</td>
<td></td>
</tr>
<tr>
<td>Third and fourth iterations of Riff A in the thematic exposition of Interlude 1</td>
<td>4:29-4:37</td>
<td>Original</td>
<td>2/4/6/8/10/12</td>
<td></td>
</tr>
<tr>
<td>Beginning of keyboard solo in Interlude 1</td>
<td>5:04-5:20</td>
<td>Rotated</td>
<td>3/7/11</td>
<td></td>
</tr>
<tr>
<td>Beginning of guitar solo in Interlude 1</td>
<td>5:45-6:02</td>
<td>Rotated</td>
<td>1/3/5/7/9/11</td>
<td></td>
</tr>
<tr>
<td>First and second presentations of Riff A in the Conclusion</td>
<td>9:29-9:37</td>
<td>Original</td>
<td>1/4/7/10</td>
<td></td>
</tr>
<tr>
<td>Third and fourth presentations of Riff A in the Conclusion</td>
<td>9:37-9:46</td>
<td>Original</td>
<td>3/7/11</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.17** The six rhythmic/metric contexts of Riff A from “Sacrificed Sons.”
Overall, “Sacrificed Sons” can be considered a work representative of Dream Theater’s style, as well as of the subgenre of progressive metal as a whole, for it involves musical elements that hearken back to both ‘70s progressive rock and ‘80s heavy metal. Importantly, few formal sections in the song can be heard as exclusively prog- or metal-influenced—indeed, it is precisely this type of stylistic multiplicity that exemplifies the progressive metal subgenre. However, there are few instances in the song where the metal and prog elements can be said to balance one another equally. My analysis has demonstrated the overall trajectory of the piece from a more clearly prog-influenced sound in the Introduction to a more metal-influenced one near the Conclusion.

Figure 5.18 The stylistic, textural, and temporal profile of Dream Theater’s “Sacrificed Sons.”
Additionally, my analysis has highlighted the gradual textural and dynamic increase that accompanies the varied returns of a number of formal sections in “Sacrificed Sons,” which I believe engenders the experience of a high degree of temporal directedness for the listener. However, I have also focused upon the temporally-complex B section and its Interludes, which interrupt and deviate from the linear time of the large A sections. In Spicer’s terms, this tension between the interwoven, “accumulative” A section “build-ups” and the divergent temporality of the B section creates an overarching cumulative form that is both interrupted and non-linear: there is a big climactic payoff at the end of the piece (in this case, the raucous third Link section), but it is not led to in a truly consistent manner. Figure 5.18 provides a summary of the accumulative and cumulative forms of “Sacrificed Sons,” as well as a depiction of the song’s overall stylistic trajectory.

My analysis of “Sacrificed Sons” has also centered on Dream Theater’s use of meter—a salient musical domain within the subgenre of prog metal—as a vehicle for thematic variation, which is deployed both in the development of original themes and motives and, importantly, in the recomposition of themes from other sources and musical traditions.

“Constant Motion” (2007)

Another song from Dream Theater’s catalog that I consider to be especially representative of the band’s signature sound is “Constant Motion,” which was released as the first single off of 2007’s Systematic Chaos. As mentioned in Chapter 1, the band shot an accompanying music video for “Constant Motion,” which enjoyed regular rotation on MTV’s Headbanger’s Ball and was nominated for the “Best Metal Video” of 2007. Additionally, the track was made available for download for use on the popular video game Rock Band in 2008. Thus, unlike “Sacrificed Sons,” “Constant Motion” is a song that is both stylistically representative of the band’s sound and commercially visible outside of Dream Theater fandom.

While the song is quite a departure from “Sacrificed Sons” in terms of timbre (it is almost exclusively thrash metal-influenced in this regard), it does feature similar metrical complexities.

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21 Prior to the “Constant Motion” video, Dream Theater hadn’t produced a music video for a decade—the most recent effort was in support of 1997’s “Hollow Years” from Falling Into Infinity.
22 While the “Constant Motion” single did not earn a place on the Billboard chart, it was the lead single off of the band’s highest-selling album to date; thus, it is perhaps the most visible song in the band’s history aside from “Pull Me Under” from Images and Words.
in its Introduction and Conclusion bookends; these point to the progressive rock style and form the focus of my analysis. The overall and specific form of “Constant Motion” is reproduced in Figure 5.19.

<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Overall Form Label</th>
<th>Specific Form Label</th>
<th>Key/Centricity/Harmony</th>
<th>Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>0:01</td>
<td>A</td>
<td>Introduction</td>
<td>e</td>
<td>Mixed</td>
</tr>
<tr>
<td>0:40</td>
<td></td>
<td>Link 1</td>
<td>e</td>
<td>Simple Quadruple (4/4)</td>
</tr>
<tr>
<td>1:01</td>
<td></td>
<td>Verse 1</td>
<td>e→b→e</td>
<td>4/4</td>
</tr>
<tr>
<td>1:44</td>
<td></td>
<td>Transition 1</td>
<td>f#→(A)</td>
<td>4/4</td>
</tr>
<tr>
<td>1:54</td>
<td></td>
<td>Chorus 1</td>
<td>F#→A→B→A</td>
<td>4/4</td>
</tr>
<tr>
<td>2:15</td>
<td>A’</td>
<td>Link 2</td>
<td>e</td>
<td>4/4</td>
</tr>
<tr>
<td>2:26</td>
<td></td>
<td>Verse 2</td>
<td>e→b→e</td>
<td>4/4</td>
</tr>
<tr>
<td>3:08</td>
<td></td>
<td>Transition 2</td>
<td>f#→(A)</td>
<td>4/4</td>
</tr>
<tr>
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<td></td>
<td>Chorus 2</td>
<td>F#→A→B→A</td>
<td>4/4</td>
</tr>
<tr>
<td>3:40</td>
<td>B</td>
<td>Interlude</td>
<td>f#</td>
<td>4/4</td>
</tr>
<tr>
<td>4:15</td>
<td></td>
<td>Guitar Solo</td>
<td>f#</td>
<td>4/4</td>
</tr>
<tr>
<td>5:11</td>
<td></td>
<td>Keyboard Solo</td>
<td>e</td>
<td>4/4</td>
</tr>
<tr>
<td>5:43</td>
<td>A’’</td>
<td>Transition 3</td>
<td>f#→(A)</td>
<td>4/4</td>
</tr>
<tr>
<td>5:54</td>
<td></td>
<td>Chorus 3-Extended</td>
<td>F#→A→B→A</td>
<td>4/4</td>
</tr>
<tr>
<td>6:36</td>
<td></td>
<td>Conclusion</td>
<td>e</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Figure 5.19 An outline of the overall and specific form of Dream Theater’s “Constant Motion.”

While I have intentionally avoided thorough discussions of the lyrical content of Dream Theater’s songs (since, as I have noted in Chapter 3, the band typically “tacks on” lyrics to “completed” musical works without much care), “Constant Motion” presents an interesting case.
Like many Dream Theater songs, “Constant Motion” began with a working title (the pun “Korma Chameleon” is shown to be the song’s working title in the DVD documentary Chaos in Progress), and was eventually renamed upon the addition of lyrics. However, these lyrics—which center on the familiar prog theme of madness (in this case, obsessive compulsive disorder, from which Portnoy claims to suffer)—seem to be clearly related to the character of the instrumental music in the song. Thus, it seems logical that the band composed the instrumental parts, considered them to be evocative or even suggestive of a lyrical theme, and wrote lyrics to parallel the music in the manner of “reverse text painting.” Interestingly, meter is primary in creating the frenzied feeling discussed in the lyrics (e.g. “Out of control/My wheels in constant motion,” “Obsessive yearning/Compulsive burning/Still never learning/Insane random thoughts of neat disorder”), and this feeling is generated immediately, during the song’s mesmerizing Introduction section.

The sixteen-bar Introduction—which to me sounds as four non-isochronous quadruple hypermeasures—begins with Petrucci playing the initial hypermeasure as a distorted guitar solo, which is then repeated with the addition of the full ensemble. While the centricity of the entire section is E-natural, there is a shift in pitch-class collection beginning in the third hypermeasure that divides the Introduction into two eight-bar subsections: whereas the first eight-bar section outlines E Locrian, the second is in B Locrian with an E pedal.

As the rhythm and pitch material of the Introduction is relatively static, the most striking and salient aspect of this section is its metrical pattern, which is ever-changing and can be very disorienting. The first measure lasts for ten beat divisions (which I have notated as eighth notes in Figure 5.20), though its motivic character hints at a hypothetical primary unit of non-isochronous triple meter (a 2+2+3 7/8 grouping) that undergoes terminal repetition and metrical expansion to a non-isochronous quadruple meter with a “double upbeat” (a 2+2+3[+3] 10/8

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23 The full texture remains until the end of the Introduction section.
24 The only exceptional pitch class in the E Locrian section is B-natural, which sounds twice. The first time, it appears as part of a concluding gesture in the fourth bar, which is composed of a compound melody outlining a power chord on F followed by another on E (a Phrygian-sounding cadential gesture that is common in heavy metal). The second occurrence of B-natural is in the end of the eighth bar, which serves as a segue into the following subsection in B Locrian.
25 The unwieldy designation “B Locrian with an E pedal” is used to denote the general transposition of the material from the first section down a perfect fourth (or simply down a string in pitch on the guitar and bass), though E2 remains the centric pitch. Since this pitch is created by the lowest-sounding open string in standard tuning, a true transposition “down a string” would be impossible on a six-string guitar (the instrument Petrucci uses in “Constant Motion”); thus, E2 remains the centric pitch that begins each measure in the second subsection and F2 is used as the second pitch to avoid repetition, though the rest of the pitch material is transposed almost exactly.
grouping). This initial unit, which already includes an instance of internal repetition, becomes the basis for all subsequent—and more thoroughly repetitive—metrical groupings, which combine to form an ABAC-AMP that can be heard on the one- and two-bar levels.26

![Figure 5.20](image)

**Figure 5.20** A Wes York-influenced representation of the rhythmic repetition pattern during the Introduction of “Constant Motion,” 0:01-0:40.

While being decidedly metrical (and thus linear and goal-directed), this temporally-complex phenomenon strikes me as possessing a degree of minimalism’s purported temporal verticality, particularly because my experience of it—especially its clearly-related motivic

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26 After presenting this analysis at the 2008 Music Theory Southeast annual meeting, Jocelyn Neal noted her slightly different—and completely plausible—hearing of the Introduction, in which the internal motivic repetitions sound as separate measures (and thus, each phrase is composed of eight measures rather than four, and the ABAC-AMP is heard on the two- and four-bar levels). While I do not hear the section in this way, both hearings preserve the ABAC structure; in Neal’s hearing, it simply takes place on a different metrical level.
repetitions—parallels that of Philip Glass’s early additive works. As such, I have provided a transcription of the Introduction in Figure 5.20, which includes a rhythmic reduction (influenced by Wes York’s process-based analysis of Glass’s “Two Pages”) that illustrates the specific nature of the internal repetition(s) of each measure.

Figure 5.21 The multi-leveled ABAC-AMP in the Introduction of “Constant Motion,” 0:01-0:40.

27 Additionally, the section’s motoric rhythm (a steady stream of eighth notes) is suggestive of the minimalist style. While progressive metal music frequently involves rhythms of this nature, the fact that the eighth note is the sole rhythmic value in these sections strengthens the stylistic correlation in context.
The final measure of the Introduction, whose metrical grouping \((2+2+4[+4+4])\) totals sixteen eighth notes (and thus maintains the additive ABAC pattern on the one- and two-bar levels), can be heard as a conflation of the thematic material from the Introduction and the metrical material from the subsequent Link section, which is in simple quadruple meter. As such, this bar functions as a metrically-articulated transition into the next section. Aiding this analysis is the addition that occurs in the measure: for the first time, rhythmic groupings of four eighth notes are heard, previewing the prevalent quarter note pulse stream in the Link. However, this “smooth” metrical transition is also “rough;” it deviates from the pervasive ABAC-AMP on the four-bar level—here, B (49 eighth notes) is larger than C (48 eighth notes). To this listener, a metrical promise (the articulation of the ABAC-AMP on every possible level of structure) has gone unfulfilled, creating what might be called a “promissory meter.”\(^29\) I have marked this deviation with an asterisk in Figure 5.21, which shows the near-completion of a maximally-articulated ABAC-AMP in the Introduction.

This analysis won’t go into as much detail with the main body of “Constant Motion” as it has with the Introduction, as the music within it is relatively straightforward—this is, after all, a song that was purposely crafted to be the album’s lead single. However, there are a few aspects that deserve special attention—particularly within the Link, Verse and Interlude sections.

The first noteworthy element I hear after the Introduction section is the guitar riff to the Link section, which, like many of the riffs in the song, is eerily reminiscent of Metallica’s thrash metal riffs. This is due to the “galloping” sixteenth/sixteenth/eighth rhythms, which are performed at a fast tempo on a palm-muted open low E string, and sound as “interjections” between the riff’s more accentuated power chords.\(^30\) The Link riff is also directly related to the motivic material from the Introduction, as shown in Figure 5.22.

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\(^{29}\) This idea refers to Cone’s analysis of a “promissory note” (pitch-class E/F-flat) in Schubert’s *Moment Musical No. 6* (E.T. Cone, “Schubert’s Promissory Note: An Exercise in Musical Hermeneutics,” *19th-Century Music* 5/3 (1982): 233–241). On first listen, I was not able to count the exact number of beats in each measure or hypermeasure of the Introduction, as I was lost in the “unanchored” experience one gets from being unable to hear pulse streams above the division-level; however, I still understood that the sixteenth bar was somehow “too short” to support the overarching ABAC-AMP that I had begun to project. In fact, my experience of this “promissory meter” was one of the initial motivations behind the conference paper “Under a (Philip) Glass Moon: Additive Process and Phrase Structure in Dream Theater’s “Constant Motion,”” which I presented at the 2008 annual meeting of Music Theory Southeast in Greensboro, NC. This conference paper, in turn, motivated this dissertation.

\(^{30}\) One example of a muted, “galloping” thrash riff from Metallica’s catalog is the famous “Darkness” riff from the song “One,” which appears on the album *...And Justice For All*. Dream Theater has very audibly recomposed this exact riff in their song “Metropolis Pt.1: The Miracle and the Sleeper.”
The Link riff is repeated and used as accompaniment to LaBrie’s singing during the beginning of the first Verse section. In all, the Verse is composed of three subsections, forming a sort of rounded binary form—an odd profile for a Verse in a heavy metal song (see Figure 5.23). I hear this short form as being somewhat intertextual with tonal music, in that it tropes the traditional key scheme of rounded binary forms by substituting “metal” modal collections: the E Phrygian-B Phrygian-E Phrygian pattern sounds as a departure-and-return in the same manner (and with the same centricities) as a tonic-to-unstable/dominant-to-tonic structure, but in the absence of true tonality.

The most salient timbral aspects of the Verse are LaBrie’s growled vocal delivery and vowel distortions, which undoubtedly—and to me, comically— allude to Metallica’s vocalist James Hetfield. Indeed, most of the reviews of “Constant Motion” written by critics and fans that I have read cite LaBrie’s tone as primary evidence of the Metallica influence that is so clearly evident throughout the song.

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31 I hear a rounded binary profile more than a ternary profile in this section because the initial A section is repeated and given more text than the B and A’ sections. Additionally, the B section in the Verse sounds transitional, rather than being capable of standing on its own.
Swaying far more toward the formal prototype of a traditional metal single are the subsequent Transition and Chorus sections, which, given the relative complexity of the Introduction and Verse sections, are a bit underwhelming. I have provided a transcription of both of these thematically-related sections in Figure 5.24. Particularly striking is the move to major-quality harmonies during the Chorus, which deviates from the minor/Phrygian/Locrian modes—more typical “metal” collections—of the rest of the song. Additionally, the overtly pop-influenced textures of the Chorus—including LaBrie and Portnoy’s call-and-response texture at the section’s beginning, as well as the subsequent multi-part vocal harmonies, which serve to reinforce the declamation of the song’s refrain—hint at a willed effort to compose an accessible Chorus worthy of a “hit” song. While this rather clichéd section chafes against the song’s prevailing affective profile, it is indicative of Dream Theater’s recent compositional style with regard to Choruses—the band tends to “break stride” with these sections quite frequently,
favoring simplistic, pop-influenced hooks over more logical stylistic transitions (other examples include “The Dark Eternal Night” from the same album, and “Panic Attack” from *Octavarium*).\(^{32}\)

![Figure 5.24 The related Transition and Chorus sections from “Constant Motion.”](image)

After another short Link section, the second Verse begins, featuring the same quasi-rounded binary scheme as in the first iteration of the section. However, the Link riff is further developed into two new variations within the A and A’ sections (see Figure 5.25). The contrasting subsection’s riff is developed as well, though its syncopated—and difficult to perform—5+4+7 division grouping obscures the connection to the initial presentation (despite the fact that the riff still outlines the B Phrygian collection and emphasizes the span from B2 to F#2). Adding to the heightened sense of rhythmic complexity in the second Verse is LaBrie’s Middle Eastern-tinged \(\frac{5}{4} \cdot \frac{3}{4} \cdot \frac{5}{8}\) melody, which is sung in a contrasting division rhythm.

\(^{32}\) Additionally, the band’s 2009 album *Black Clouds and Silver Linings* features two songs—“A Nightmare to Remember” and “A Rite of Passage,” the first two tracks on the album—that include overtly pop-influenced Chorus sections which jarringly deviate from the stylistic profile of the formally-adjacent material.
(2+3+3+3+3+2) that can be considered a rotation of the traditional diatonic 3+3+3+3+4 (or 2+2) pattern.

Verse 2 Part A

(2+172)

Vocals: "Focus here, focus there..."

Verse 2 Part B

Vocals: "Obsessive yearning..."

Verse 2 Part A'

Vocals: "Scattered wasteland surrounding me..."

Figure 5.25 The varied return of the rounded binary-form Verse section in “Constant Motion.”

Verse 2 is followed by the second Transition and Chorus sections, which are almost completely unchanged from their initial presentations. The only (somewhat) significant difference lies in Transition 2, which does not include the strange synthesizer effects that decorated Transition 1.
The ensuing and contrasting instrumental B section of “Constant Motion,” like that of “Sacrificed Sons,” can be considered to be a large Interlude that is able to be perceptually divided into three units. In this case, the units are (in chronological order): a texturally-thin Interlude with a bass feature, a guitar solo, and a keyboard solo. Unlike the “Sacrificed Sons” B section, however, the harmonic structure of the B section in “Constant Motion” conflicts with this texture- and thematic design-based tripartite division, and instead suggests a two-part form: the initial bass feature shares an F# centricity—and an implication of F# Phrygian, with its semitone root motion to G—with the guitar solo, whereas the keyboard solo features a move back to the prevailing E centricity. Another way of hearing the form in this B section focuses on the Link riff, which is “recycled” as the accompaniment to the keyboard solo, as it had been during the Verse sections. This thematic reinstatement is suggestive of a kind of formal conflation, as one could easily hear the keyboard solo as a substitute for what would be the third texted Verse—thus, in this hearing, the tail end of the instrumental B section is integrated into the texted return of the large A’’ section. I believe that this formal ambiguity creates interest within the large Interlude, which would otherwise be a rather simplistic—yet prog-influenced—bass/guitar/keyboard solo exchange.

Another noteworthy element of the B section of “Constant Motion” is that it includes yet another variation of the Introduction riff during the second half of the bass-centric Interlude, which sounds as a single-line melody in the higher register of the palm-muted guitar that is transposed to F# Locrian (and altered to project simple quadruple meter). A third remarkable aspect of the B section is the accompanying material to the guitar solo, which features an over-the-bar line diatonic rhythm \((3+3+3+3+4)\) as well as a fuller realization of the stereotypically “Middle-Eastern” feel that was hinted at during the second subsection of Verse 2 (see Figure 5.26). This Middle-Eastern tinge is created by the fifth-mode harmonic minor scale outlined by the guitar and bass riff, as well as the high-tom-centric drum pattern played by Portnoy.

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33 This rhythmic pattern, like the rotated \(2+3+3+3+3+2\) grouping discussed earlier in the Verse 2 analysis, can only be considered to be diatonic if it is heard as a subdivision pattern on the two-bar level; this is because it is not a maximally even division pattern.
The third and final Transition and Chorus sections compose the large A’’ section, and remain mostly unchanged. Transition 3 reinstates the synthesizer effects that were heard in the background of the initial Transition; however, this time, Rudess performs with what sounds like a siren patch, which is appropriate considering the frenzied lyrical theme. As is the tradition in pop/rock music, the final Chorus of “Constant Motion” is extended via repetition, and includes new lines of text. While the death metal-inspired growled yelling of the final line of text by Portnoy (“Into the night, blistering,” which was surprisingly absent upon the extension of the section) punctuates “Constant Motion” quite nicely, and would work as a serviceable (if abrupt) end to the song, there remains a bit of unfinished business—the “promissory meter” from the Introduction.

Dream Theater duly addresses this matter in the eight-bar Conclusion section, which sounds as a full-textured restatement of the first two phrases of the Introduction that replaces the final measure with a 20/8 bar featuring the pattern (2+2+3[+2+3+2+3+3]). This conclusive measure introduces the longest internal repetition yet, and can be heard as the fulfillment of the metrical promise—a continuation of the maximally-articulated ABAC-AMP that was hinted at approximately six minutes earlier in the Introduction (see Figures 5.27 and 5.28).

34 In Chorus 3, the line “Can’t stop the wheels from turnin’” is inserted in place of “Forevermore, into the night blistering” at the anticipated end of the section, and “You get yours and I got mine” substitutes for “Out of body, out of mind” during the “extra” repeat of the section.
Figure 5.27 A Wes York-influenced representation of the rhythmic repetition pattern during the Conclusion of “Constant Motion,” 6:36-6:55.

Figure 5.28 The continuation of the multi-leveled ABAC-AMP from the Introduction during the Conclusion, 6:36-6:55.

My experience of the Conclusion section is at once satisfying and confounding. On one hand, the section is very fitting and rewarding, as it is conclusive with regard to both local and
long-range metrical patterns. The Conclusion’s allusion to a “correctly”-completed three-level ABAC-AMP—a metrical phenomenon that is at once logically structured and experientially mystifying—is also mimetically related to both the song’s lyrics (it can be understood as “neat disorder”) and the unifying concept behind the album as a whole (it sounds truly as “systematic chaos”); thus, it seems like a perfectly apt finale on many levels. One the other hand, the newly-completed ABAC-AMP retroactively problematizes the majority of the song’s duration. For, despite the clear thematic connections between the Introduction riff and those of the various other sections of the song which I have described in my analysis, I cannot help but hear the “proper” ABA’A’ form as anything but an extended digression away from the process-oriented formal bookends. Thus, overall, the temporal complexity of “Constant Motion” is twofold: 1) there are surprising surface-level rhythmic and metrical phenomena which deviate from the predominantly linear experience of time throughout the form and hint at a degree of temporal verticality; and 2) a special kind of temporal non-linearity exists on the level of the overall form, as a large, locally-linear section (the “proper” form) serves as an interruption to another (the ABAC-AMP of the Introduction and Conclusion).

**Conclusion**

Dream Theater’s songs “Sacrificed Sons” and “Constant Motion” differ in many ways—most notably, in duration, instrumentation, lyrical theme, and overall style (i.e., “Constant Motion” is far more metal-influenced throughout its duration). However, both feature prog-inspired displays of virtuosity and intertextuality, as well as metal-inspired timbres (especially growled vocals and distorted guitars), power chords, and “shred guitar” techniques. As such, both songs typify the subgenre of progressive metal to a significant degree. Additionally, my analyses of these two songs have focused upon Dream Theater’s use of metrical complexity (more accurately, numerous metrical complexities), which, as I have noted throughout this dissertation, I consider to be the most salient marker of the band’s overall sound (as well as the key identifier of the progressive metal style). I have given much attention to the salient and surprising long-range ABAC-AMPs present within both songs, which to me sound indebted to the process-driven works of the early minimalists by way of connections in temporal experience (and are, by proxy, intertextual with classic-era progressive rock music, which freely and openly
borrows from Western concert music practice). These ABAC-AMPs also demonstrate Dream Theater’s proclivity for using meter as a primary vehicle for motivic and thematic variation, which is a technique that is especially characteristic of progressive metal music.
CHAPTER 6
POSTLUDE AND CONCLUSIONS

Postlude

It has been twenty years since the release of Dream Theater’s debut album, *When Dream And Day Unite*, and the band’s influence can still be felt—both within the subgenre of progressive metal (over which it still reigns as the best-known act) and throughout the world of popular music; indeed, its music is probably more relevant today than ever before. One example of its continuing influence is the album *The String Quartet Tribute to Dream Theater*, which was released by Vitamin Records in 2007.¹ I have also come across other examples pointing to the band’s ongoing visibility in popular culture, such as the San Antonio Spurs’ and Minnesota Timberwolves’ use of its music during warm-ups for NBA games, as well as the presence of its songs on the extremely successful video games *Guitar Hero: World Tour* (“Pull Me Under”), *Rock Band* (“Constant Motion”), and *Rock Band 2* (“Panic Attack”). Perhaps the clearest sign of Dream Theater’s cultural presence, however, is the extraordinary commercial success of its most recent album, *Black Clouds and Silver Linings*. Eclipsing *Systematic Chaos*, *Black Clouds* has quickly become the highest-charting album in the band’s history, and the first to ever break into the top ten on the Billboard chart, as it debuted at the sixth position.² The album was also ranked first on the Billboard European Albums chart, peaking within the top five positions of the charts from Italy, Hungary, Finland, Sweden, Germany, and the Netherlands.³ While it has only been a handful of months since the album’s release (and thus it is premature to speculate about the extent of any increase in the band’s cultural relevance), it seems probable that the resurgence in

¹ Vitamin has released “Vitamin String Quartet” albums that include arrangements of popular bands’ songs, including tributes to the music of Bob Dylan, The Beatles, Nirvana, and more. Bowman notes in his dissertation that this type of homage—in which an artist or group of artists is either 1) asked to perform its own music with a live orchestral arrangement, or 2) asked for permission to create an orchestral arrangement without the band actually performing (as is the case with the Dream Theater tribute)—dates to the late 1960s and early ’70s (he gives the example of Procol Harum), but it also enjoyed something of a revival in the late 1990s and early 2000s (Bowman, *Permanent Change*, 28).
² Billboard, “Artist Chart History-Dream Theater.” Portnoy expressed his utter dismay with the album’s success in an interview published by Dream Theater’s current record label, Roadrunner: “An album with four songs over twelve minutes in the U.S. Top 10? Hell must’ve frozen over (Blabbermouth.net, “News Archive”!”)
³ Ibid. Blabbermouth.net also reported that *Black Clouds and Silver Linings* peaked at the fifth position in Canada. Additionally, the album made it inside the top twenty-five in the U.K. (peaking at twenty-third), making it just the second Dream Theater album to ever accomplish such a feat (as mentioned in Chapter 1, *Systematic Chaos* peaked at twenty-fifth in 2007).
the band’s fan base will result in a number of future Dream Theater albums, all of which I look forward to hearing as both a fan and analyst.

As I am sure is the case with any music scholar involved in a study of an active musician or group of musicians (a “moving target” of sorts), I experienced a degree of trepidation upon learning that the subject of my scholarship was to release a new musical work during the writing process. Would the band move in a completely different direction with regard to style? Would the music be less metrically complex than the music on all of the previous albums? Would some of my conclusions be rendered baseless (or at least substantially weakened)? Fortunately for me (and, apparently, for the band), my anxiety was unjustified, as the album sounds very similar to its recent counterpart, *Systematic Chaos* (which enjoyed comparable commercial success). While I have not yet had the time to learn and transcribe much of the album, I do hear in it many of the quintessential Dream Theater metrical complexities that I have outlined in Chapter 4, including several examples of metrical reinterpretation (particularly on the album’s closing track to the Twelve-step Suite, “The Shattered Fortress,” which contains the work’s final three movements and thematically and metrically develops themes from all of the earlier movements), as well as a few ABAC-AMPs (there are two in the album’s final track, “The Count of Tuscany,” the second of which unfolds on three metrical levels for over forty seconds). The only significant deviation from the classic Dream Theater sound that I have heard on *Black Clouds* during my initial experiences with the music regards formal delineation: the band seems to have abandoned the metrically-articulated transition that characterized much of its earlier material. For instance, on tracks like “A Nightmare to Remember” and “A Rite of Passage” (which was released as the album’s lead single), drastically different metric and stylistic states are presented consecutively and without reconciliation; to me, this leads to a jarringly fragmented experience of what Kramer calls “moment time,” which is evocative of the temporality that is typically attributed to postmodern concert music. I look forward to analyzing these experiences in future analytic endeavors.

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4 Indeed, upon first listen, I would position the album adjacent to *Systematic Chaos* in Figure 1.2. The album, while at times overtly prog-influenced, does include an abundance of “heavy” timbres and “shred guitar,” and features the most authentic blast beat ever recorded by the band during the Conclusion of “A Nightmare to Remember.”
Conclusions

My analyses of Dream Theater’s music in support of this dissertation have led to a number of broad conclusions. First, the band’s signature sound is best characterized as possessing a progressive rock center and a heavy metal periphery—essentially, I hear the music as prog in metal’s clothing. Second, Dream Theater primarily asserts its “progressive” identity through the musical domain of meter. Despite the large number of progressive rock traits I identify as audible (or otherwise perceivable) in the band’s music in Chapter 3, I believe that metrical complexity is the most salient marker of a prog rock influence in its sound. This salience is engendered through repetition: the sheer frequency of metrical complexities that can be experienced in Dream Theater’s music marks them as characterizing elements. Third, the band typically writes music in four-bar phrases, yet creates non-isochronous quadruple hypermeasures by altering the fourth hyperbeat (either through metrical contraction, or more commonly, metrical expansion). This hypermetric profile leads to a surprising, yet still primarily linear, experience of temporality in the band’s music: metrical implications are created via repetition in the beginning of phrases, and are ultimately subverted near their ends. As I have noted in Chapter 4, the resultant subverted implications rarely sound “random,” but rather involve direct relationships between motivic transformation and metrical expansion/contraction; this creates a sustained sense of continuity amid such disruptive changes in meter. Fourth, Dream Theater often combines such “tail-end” variations with subphrases in mixed meter (or alternatively, it recursively varies the ends of repeated hypermeasures), which creates ABAC metrical schemes that to me are evocative of the “vertical” experience of temporality that is typically attributed to minimalist compositions. A fifth conclusion regards the formal design of Dream Theater’s songs: despite their complexity with regard to specific form, they tend to follow an overall formal plan that is best described as composite AA’BA’’, in which each large A or B section is itself composed of multiple sections. The contrasting B sections of these composite forms are often entirely instrumental (and thus are best described as multi-part Interludes), and typically feature the highest degrees of both virtuosity and metrical complexity within a given song.

The central aim of this analytical study has been to describe Dream Theater’s musical style, focusing on what I—and many other fans and critics—consider to be the most
characteristic element of the band’s sound: metrical complexity. However, the peripheral extensions outward from this metaphorical center of purpose are, to me, more significant to the subfield of popular music analysis, and, hopefully, to the overall field of music theory. The first of these has been my aim to more aptly describe the perceptual phenomenon of meter through the reconsideration of—and in some cases, the redefinition of—some problematic terminology (e.g. terms related to ideas of hypermeter, metrical reinterpretation, and polymeter). This has also led to the introduction of new terms and concepts, which has been done in order to explain phenomena that either haven’t been addressed at all or have only been discussed in passing (e.g. metrical liquidation). A second peripheral purpose of this study has been to serve as a model for the music-theoretical analysis of popular music that is both technically rigorous and grounded in the work. To me, the analytical “situation” that best approaches “groundedness” in the work—particularly in a project involving non-notated music—is one that begins with the esthesic level of listener perception and proceeds toward the neutral and poietic levels. Thus, I have tried to explicitly insert myself into the foreground of my analyses, using phrases such as “this listener” instead of “the listener” to communicate this approach. However, I have also attempted to demonstrate the multiplicity of musical domains that have led to my personal hearings and segmentations with thorough descriptions and transcriptions, to ensure that my analyses, while embracing subjectivity, do not come across as arbitrary. A third tangential goal of this project has been to appeal to both music theorists and lovers of popular music, which I have tried to accomplish by using language that is both precise and accessible (or at least moderately so). The final—and to me, most important—peripheral goal has been to simply have fun, which is directly related to my both my choice of Dream Theater’s music as my analytical subject and my transcription-centered methodology. As everyone in music academia knows, one has to be very intimately involved with his or her analytical subject to produce a worthwhile dissertation. Thus, my approach of engaging Dream Theater’s music—to which I listen for pleasure, regardless of whether or not I am involved with it in a music-analytical context—primarily through listening and performance ensured that I would not suffer “burnout” and would continue to enjoy the music throughout the years of research and writing.

My hope is that this project will benefit others in the field by serving as a point of departure for the analysis of recent progressive rock and heavy metal music. Though I intend to continue with my investigations of Dream Theater’s music, there are many other active artists
and bands whose work is equally deserving of scholarly attention (particularly King Crimson, whose still-expanding oeuvre is frequently touched upon but has yet to be treated with a full-length contribution). Also, while I outline many of the primary musical traits of the progressive rock and heavy metal styles in Chapter 3, there is much more work to be done—both in describing these traits with more detail, and, importantly, in discussing how these traits have changed over the past three decades. More broadly, I hope that this dissertation will aid scholars who are interested in analyzing rhythmically complex music by providing terminology that will enable them to investigate music that is traditionally described (or dismissed) as quasi-metric or ametric with more precision. Most of all, though, it is my sincere hope that this contribution will inspire future scholars to simply study the music they love—regardless of whether or not the music has been previously examined.
## APPENDIX: CATALOG OF METRICAL PHENOMENA IN DREAM THEATER’S MUSIC

<table>
<thead>
<tr>
<th>Album Title</th>
<th>Song Title</th>
<th>Timestamp</th>
<th>Independent Metrical Expansion</th>
<th>Motivically-Related Metrical Expansion</th>
<th>Independent Metrical Contraction</th>
<th>Motivically-related Metrical Contraction</th>
<th>Additive or Subtractive Process</th>
<th>Metrical Reinterpretation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>When Dream and Day Unite</td>
<td>Status Seeker</td>
<td>0:01-0:30</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chorus is a good example of hypermetrical variation and development</td>
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<tr>
<td></td>
<td></td>
<td>1:40</td>
<td>x</td>
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<td></td>
<td></td>
<td>2:30</td>
<td>x</td>
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<td></td>
<td></td>
<td>3:42</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>Hypermetrical elision</td>
</tr>
<tr>
<td></td>
<td>The Ytse Jam</td>
<td>0:22-0:51, 1:46-2:09, 5:21-5:32</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contraction every fourth bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1:24-1:46</td>
<td>x</td>
<td></td>
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<td></td>
<td>Polyrhythm: 4+3+2+3 over 3/4</td>
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<td></td>
<td></td>
<td>2:09</td>
<td>x</td>
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<td>2:20, 5:32</td>
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<td>2:47-3:45</td>
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<td></td>
<td>Great example of gradual additive metrical process: 4+4+4+4 becomes 4+4+4+5 then 4+4+4+6</td>
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<tr>
<td></td>
<td>The Killing Hand</td>
<td>4:56</td>
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<td></td>
<td>Addition of extra beats</td>
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<tr>
<td></td>
<td>Afterlife</td>
<td>0:36, 2:46</td>
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<td>Addition of an extra beat</td>
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<tr>
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<td>The Ones Who Help to Set the Sun</td>
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<tr>
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<td>5:28, 8:00</td>
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<td>Addition of an extra beat</td>
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<tr>
<td></td>
<td>Only a Matter of Time</td>
<td>0:05-0:55</td>
<td>x</td>
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<td>Augmentation every other bar</td>
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<tr>
<td>Images and Words</td>
<td>Pull Me Under</td>
<td>2:01</td>
<td>x</td>
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<tr>
<td>Take the Time</td>
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<td>2:27</td>
<td>x</td>
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<td>Surrounded</td>
<td>2:15, 3:10</td>
<td>x</td>
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<td>Metropolis Pt. I: The Miracle and the Sleeper</td>
<td>2:17</td>
<td>x</td>
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<td></td>
<td>2:43</td>
<td>x</td>
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<td>4:19-5:02</td>
<td>x</td>
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<td>7:01</td>
<td>x</td>
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<tr>
<td></td>
<td>7:38-7:46</td>
<td>x</td>
<td>x</td>
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<td>Maximally even variation pattern</td>
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<td>Under a Glass Moon</td>
<td>2:43</td>
<td>x</td>
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<td></td>
<td>3:57</td>
<td>x</td>
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<tr>
<td>Wait for Sleep</td>
<td>0:01-0:31, 0:46-0:53, 2:03-2:21</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Motivic and metrical variation throughout with addition and subtraction</td>
<td></td>
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<td></td>
<td>0:53-1:10</td>
<td>x</td>
<td></td>
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<td>Addition</td>
<td></td>
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<td>Learning to Live</td>
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<td>Polymeter</td>
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<td>0:38-0:46</td>
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<td>x</td>
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<td>3:10-4:02</td>
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<td>x</td>
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<td></td>
<td>8:00-8:12</td>
<td>x</td>
<td>x</td>
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<tr>
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<tr>
<td>8:12-8:41</td>
<td>x</td>
<td>Variation on “Wait for Sleep”</td>
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<tr>
<td>10:16</td>
<td>x</td>
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<td>10:16</td>
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**Awake**

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<tbody>
<tr>
<td>6:00</td>
<td>0:39</td>
<td>Metrical re-interpretation and bar line shift</td>
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<tr>
<td></td>
<td>1:31</td>
<td>Addition of an extra beat</td>
</tr>
<tr>
<td></td>
<td>2:44-3:13</td>
<td>Gradual metrical additive process: 4+4+4+4 becomes 4+4+4+4+4 and 4+4+5+6</td>
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<tr>
<td></td>
<td>3:13-3:33</td>
<td>ABAC additive metrical process as the climax: 5+6+5+[4+4+4+4+4]</td>
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<tr>
<td></td>
<td>1:36</td>
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<tr>
<td></td>
<td>2:46-2:53</td>
<td>Contraction of previously contracted material</td>
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</table>

**Caught in a Web**

<table>
<thead>
<tr>
<th>Time</th>
<th>Events</th>
<th>Details</th>
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<tbody>
<tr>
<td>0:01-0:22, 0:41-0:56, 1:41-1:58, 5:45-6:00</td>
<td>x</td>
<td>Subtraction-related metrical contraction throughout theme</td>
</tr>
<tr>
<td>0:30, 1:02, 6:06</td>
<td>x</td>
<td>Metrical liquidation, hypermetrical expansion</td>
</tr>
<tr>
<td>1:14-1:41, 4:25, 6:07</td>
<td>x</td>
<td>Internal subtraction</td>
</tr>
<tr>
<td>2:31</td>
<td>x</td>
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</table>

**Erotomania**

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<thead>
<tr>
<th>Time</th>
<th>Events</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>4:14-4:23</td>
<td>x</td>
<td>Addition, expansion of previously contracted material (1:14)</td>
</tr>
<tr>
<td>4:30</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>5:22</td>
<td>x</td>
<td>Diminution</td>
</tr>
<tr>
<td></td>
<td>5:30-5:44</td>
<td>x</td>
</tr>
<tr>
<td>---------------------</td>
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</tr>
<tr>
<td>Voices</td>
<td>3:03, 4:13, 9:06</td>
<td>x</td>
</tr>
<tr>
<td>Mirror</td>
<td>0:05, 0:14, 0:37</td>
<td>x</td>
</tr>
<tr>
<td>Lie</td>
<td>3:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3:42-4:02</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>4:02</td>
<td></td>
</tr>
<tr>
<td>Lifting Shadows Off a Dream</td>
<td>3:34-3:57</td>
<td>x</td>
</tr>
<tr>
<td>Scarred</td>
<td>2:43, 2:51</td>
<td>x</td>
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<tr>
<td></td>
<td>9:58</td>
<td>x</td>
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**A Change of Seasons [EP]**

<table>
<thead>
<tr>
<th>A Change of Seasons</th>
<th>A Change of Seasons I: The Crimson Sunrise</th>
<th>1:42</th>
<th>x</th>
<th>Augmentation</th>
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<tr>
<td></td>
<td>A Change of Seasons II: Innocence</td>
<td>4:43-5:01, 6:15-6:31</td>
<td>x</td>
<td>x</td>
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<tr>
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<td>A Change of Seasons VII: The Crimson Sunset</td>
<td>21:08</td>
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<td>Track</td>
<td>Time</td>
<td>x</td>
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<tr>
<td><strong>Falling into Infinity</strong></td>
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<tr>
<td></td>
<td>0:29-1:22</td>
<td>x</td>
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</tr>
<tr>
<td></td>
<td>6:42-7:12</td>
<td>x</td>
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<tr>
<td><strong>Burning my Soul</strong></td>
<td>3:33-3:57</td>
<td>x</td>
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<tr>
<td><strong>Hell’s Kitchen</strong></td>
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<tr>
<td></td>
<td>1:20-1:55</td>
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<td>x</td>
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<td>2:19</td>
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<td>2:42, 2:47</td>
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<td>x</td>
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<tr>
<td></td>
<td>2:48</td>
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<td>x</td>
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<tr>
<td></td>
<td>3:18-3:40, 3:52-4:10</td>
<td>x</td>
<td>(x)</td>
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<tr>
<td><strong>Lines in the Sand</strong></td>
<td>4:05</td>
<td>x</td>
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<tr>
<td><strong>Just Let Me Breathe</strong></td>
<td>2:00, 2:50</td>
<td>x</td>
<td></td>
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<tr>
<td></td>
<td>3:40</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><strong>Trial of Tears</strong></td>
<td>3:25-3:53</td>
<td>x</td>
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<tr>
<td>Metropolis Pt. II: Scenes From a Memory</td>
<td>Time</td>
<td>Event</td>
<td>Description</td>
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<td>----------------------------------------</td>
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<tr>
<td>Overture 1928</td>
<td>2:00</td>
<td>x</td>
<td>Addition of an extra beat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2:45-3:00</td>
<td>x</td>
<td>Additive process: 4+3, 4+4, 4+6 at phrase end</td>
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</tr>
<tr>
<td></td>
<td>3:06</td>
<td>x</td>
<td>additive process: 4+3, 4+4, 4+6 at phrase end</td>
<td></td>
</tr>
<tr>
<td>Strange Déjà Vu</td>
<td>0:56</td>
<td>x</td>
<td>Addition of extra beats</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1:53</td>
<td>(x)</td>
<td>Text-related</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2:02, 4:02</td>
<td>x</td>
<td>Text-related</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2:53</td>
<td>x</td>
<td>Addition of extra beats</td>
<td></td>
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<tr>
<td>Fatal Tragedy</td>
<td>1:06</td>
<td>x</td>
<td>Addition of an extra beat</td>
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<tr>
<td></td>
<td>1:57, 3:37</td>
<td>x</td>
<td>Diminution-related metrical contraction creating a varied return of the refrain: 4/4 becomes 3/4 at 1:57, 6/8 at 3:37</td>
<td></td>
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<tr>
<td></td>
<td>4:12-4:22</td>
<td>x</td>
<td>Polymeter: 4/4 against 6/4</td>
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<tr>
<td></td>
<td>4:32-5:55</td>
<td>x</td>
<td>Hypermetrical additive/subtractive process [8-7-5-3-1-5-3-5-7-8], with the final measure in 2/4 instead of 4/4</td>
<td></td>
</tr>
<tr>
<td>Beyond This Life</td>
<td>0:30, 1:30</td>
<td>x</td>
<td>Addition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2:18</td>
<td>x</td>
<td>Addition</td>
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<td></td>
<td>4:01</td>
<td>x</td>
<td>Text-related</td>
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<td>4:24</td>
<td>x</td>
<td>Text-related</td>
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<tr>
<td></td>
<td>6:10</td>
<td>x</td>
<td>Addition</td>
<td></td>
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<tr>
<td></td>
<td>8:26-8:46</td>
<td>x</td>
<td>Polymeter</td>
<td></td>
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<tr>
<td>Time</td>
<td>Section</td>
<td>Metrical Relationships</td>
<td>Additional Notes</td>
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<tr>
<td>11:44-12:53</td>
<td>Home</td>
<td>x</td>
<td>Repetition and subtraction</td>
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<tr>
<td>0:31-0:44, 4:34-4:43</td>
<td>Diminution throughout phrases: 8-7-6</td>
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<tr>
<td>0:58-1:05, 1:19-1:27</td>
<td>Addition and subtraction, in a different pattern each iteration</td>
<td>x</td>
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<tr>
<td>1:37</td>
<td>x</td>
<td>x</td>
<td>Metrical reinterpretation</td>
<td></td>
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<tr>
<td>1:44</td>
<td>x</td>
<td></td>
<td>Subtraction</td>
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<tr>
<td>2:00</td>
<td>x</td>
<td>x</td>
<td>Metrical reinterpretation</td>
<td></td>
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<tr>
<td>4:13-4:19</td>
<td>Metrical liquidation: 8-7-6 at end of phrase</td>
<td>x</td>
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<tr>
<td>4:23-4:30, (5:28-5:30, 5:44-5:56)</td>
<td>Maximally even variation pattern from Metropolis Pt. I</td>
<td>x</td>
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<tr>
<td>4:43-5:13</td>
<td>Addition</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:13-5:27, 5:31-5:44</td>
<td>Multiple ABAC metrical patterns (none are consistently additive or subtractive), metrical reinterpretation</td>
<td>x</td>
<td></td>
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<tr>
<td>6:00</td>
<td>x</td>
<td></td>
<td>Addition</td>
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<tr>
<td>1:52-2:20</td>
<td>One Last Time</td>
<td>x</td>
<td>Addition of an extra beat</td>
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<tr>
<td>1:41, 2:51</td>
<td>x</td>
<td>x</td>
<td>Addition of an extra beat</td>
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<tr>
<td>2:16</td>
<td>x</td>
<td>x</td>
<td>Addition of extra beats</td>
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<tr>
<td>5:38-5:53</td>
<td>Metrical liquidation: 4+4, 3+3+2, 3+3</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>7:18</td>
<td>x</td>
<td></td>
<td>Addition of extra beats</td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td>x</td>
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<td>Polymeter</td>
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### Six Degrees of Inner Turbulence

<table>
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<tr>
<td>4:37</td>
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<td>5:23</td>
<td>x</td>
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<tr>
<td>7:15, 9:06</td>
<td>x</td>
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<tr>
<td>8:04-8:19</td>
<td>(x)</td>
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<tr>
<td>8:34-8:51</td>
<td>x</td>
</tr>
<tr>
<td>9:38</td>
<td>x</td>
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<tr>
<td>12:27</td>
<td>x</td>
</tr>
<tr>
<td>12:48</td>
<td>x</td>
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<tr>
<td>2:58, 4:32, 8:50</td>
<td>Addition of extra beats</td>
</tr>
<tr>
<td>4:56</td>
<td>x</td>
</tr>
<tr>
<td>5:00-5:13, 7:32-7:55</td>
<td>Tighter motivic repetitions relate to metrical contraction</td>
</tr>
<tr>
<td>5:41-5:56</td>
<td>x</td>
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<tr>
<td>5:56-6:05</td>
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<td>6:05-7:32</td>
<td>x</td>
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<td>1:49, 3:35, 5:46</td>
<td>Addition of an extra beat</td>
</tr>
<tr>
<td>3:32</td>
<td>x</td>
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<tr>
<td>5:00, 6:57, 7:23</td>
<td>Addition of an extra beat</td>
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### The Glass Prison

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<td>Addition of extra beats</td>
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<tr>
<td>4:37</td>
<td>x</td>
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<tr>
<td>5:23</td>
<td>x</td>
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<tr>
<td>7:15, 9:06</td>
<td>x</td>
</tr>
<tr>
<td>8:04-8:19</td>
<td>(x)</td>
</tr>
<tr>
<td>8:34-8:51</td>
<td>x</td>
</tr>
<tr>
<td>9:38</td>
<td>x</td>
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<tr>
<td>12:27</td>
<td>x</td>
</tr>
<tr>
<td>12:48</td>
<td>x</td>
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<td>5:00, 6:57, 7:23</td>
<td>Addition of an extra beat</td>
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### Blind Faith

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<tr>
<td>4:37</td>
<td>x</td>
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<tr>
<td>5:23</td>
<td>x</td>
</tr>
<tr>
<td>7:15, 9:06</td>
<td>x</td>
</tr>
<tr>
<td>8:04-8:19</td>
<td>(x)</td>
</tr>
<tr>
<td>8:34-8:51</td>
<td>x</td>
</tr>
<tr>
<td>9:38</td>
<td>x</td>
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<tr>
<td>12:27</td>
<td>x</td>
</tr>
<tr>
<td>12:48</td>
<td>x</td>
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<tr>
<td>2:58, 4:32, 8:50</td>
<td>Addition of extra beats</td>
</tr>
<tr>
<td>4:56</td>
<td>x</td>
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<td>5:00-5:13, 7:32-7:55</td>
<td>ABAC subtractive metrical pattern: 8+6+8+5</td>
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<td>5:41-5:56</td>
<td>x</td>
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<td>5:56-6:05</td>
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<td>6:05-7:32</td>
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### Misunderstood

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<td>Addition of an extra beat</td>
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<td>3:33-3:39, 3:44-3:50</td>
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<td>4:18-4:46</td>
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<td>4:58-5:33, 5:45-5:56</td>
<td>x</td>
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<td>0:20, 2:44, 5:50</td>
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<td>3:07</td>
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<td>Time</td>
<td>Event</td>
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<td>1:03, 1:10, 1:15, 2:10, 2:15, 2:19</td>
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<td>3:52-4:24, 5:20</td>
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<td>5:28, 5:34</td>
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<td>5:41</td>
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<td>x</td>
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<td>1:24-1:33, 1:40-1:46</td>
<td>x</td>
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<td>1:48</td>
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<td>0:27-0:40, 4:29-4:42</td>
<td>1:27, 1:43</td>
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<td>6:00-6:31</td>
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<td>6:38, 6:57</td>
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<td>7:20, 7:26, 7:34, 7:40</td>
<td>(x)</td>
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<td>8:05-8:35</td>
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<tr>
<td>4:50</td>
<td>ABAC additive</td>
</tr>
<tr>
<td>6:32-7:55</td>
<td>6+5+6+6 pattern</td>
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<tr>
<td>7:55-8:05</td>
<td>The final four bars of the long section are all in 6, furthering the metrical development</td>
</tr>
<tr>
<td>9:00</td>
<td>Addition of extra beats</td>
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<tr>
<td>Stream of Consciousness</td>
<td>Diminution of the theme from the previous song, “Vacant”</td>
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<tr>
<td>0:01-1:17, 1:44-2:03, 7:32-8:10, 10:20-10:35</td>
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<tr>
<td>1:17-1:38, 8:10-8:30</td>
<td>Addition every first and third measure</td>
</tr>
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<td>1:38-1:44, 8:31-10:20</td>
<td>Addition every measure</td>
</tr>
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<td>3:52-4:11, 4:28-4:48</td>
<td>Addition</td>
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<td>4:11, 4:49</td>
<td>Addition of an extra measure</td>
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<tr>
<td>5:48-5:57, 6:38-6:47</td>
<td>Subtraction every other bar</td>
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<td>Addition of an extra beat</td>
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<td>9:51, 10:17</td>
<td>Addition of an extra measure</td>
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<td>10:35</td>
<td>Addition of an extra beat</td>
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<td>Time</td>
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<tr>
<td><strong>In the Name of God</strong></td>
<td>5:51-6:07</td>
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<td>7:14-7:19</td>
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<td>8:08-8:36</td>
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<td><strong>Octavarium</strong></td>
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<td>These Walls</td>
<td>1:10-1:45, 2:37-3:21, 4:44-5:07</td>
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<td>1:45-2:04, 3:21-3:37, 5:07-5:23</td>
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<td>0:40, 0:50</td>
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<td>1:26</td>
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<td><strong>Panic Attack</strong></td>
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<td><strong>Sacrificed Sons</strong></td>
<td>0:57-1:16</td>
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<td>4:38-4:42</td>
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<td>Action</td>
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| 4:43-4:52,  
6:02-6:22 | x                                           | Addition every other measure                                           |
| 4:52-5:04 | x                                           | ABAC metrical additive process                                          |
| 5:04-5:21,  
5:46-6:02 | x                                           | Reich’s rotation technique                                              |
| 5:21-5:46 | x                                           | Multi-level ABAC metrical additive process                              |
| 6:22       | x                                           | Addition, metrical reinterpretation                                     |
| 6:32       | x                                           |                                                                         |
| 7:53       | x                                           | Expansion of previously contracted material                             |
| 13:35, 13:40 | x                                      |                                                                         |
| 13:41-13:49 | x                                      |                                                                         |
| 14:08-14:28,  
14:49-15:19 | x                                           | Metrical liquidation with diminution                                    |
| 14:30-14:49,  
15:19-15:40 | x                                           | Subtraction every fourth measure                                        |
| 14:49-15:49,  
15:19-15:40 | x                                           | Addition and subtraction: 5+6+6+5 three times, then 5+6+6+7 (text-related) |
<p>| 15:51, 16:18 | x                                           | Addition                                                                 |
| 15:59, 16:27 | x                                           | Hypermetrical contraction with motive repetition                         |</p>
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<th>6:00-16:08</th>
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<th>x</th>
<th>ABAC metrical additive and subtractive pattern: 7+6+7+8</th>
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<td>16:28-16:36</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>ABAC additive and subtractive metrical pattern with ABAC-AMP on the 2-bar level; a continuation of the previous material with an expansion in the final bar: 7+6+7+8, 7+6+7+12</td>
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<tr>
<td>16:58-17:31</td>
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<td>Addition of an extra beat every other measure</td>
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<td>17:36</td>
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<td>17:39-17:50</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>ABAC additive metrical pattern on the 2-bar level: 5+6, 5+5, 5+6, 5+12+12 with metrical reinterpretation in the final two bars</td>
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<td>17:56-18:09</td>
<td>x</td>
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<td>x</td>
<td>x</td>
<td>7+6+7+7, 7+6+7 with elision into 4/4 section</td>
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<td>19:08</td>
<td>x</td>
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<td>Addition</td>
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**Systematic Chaos**

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<td>x</td>
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<td>4:59-5:10</td>
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**ABAC additive metrical process on multiple levels:**

- 9+10+9+11, 9+10+12+14
- More metrically determined 7+6 with beat subtraction than in the Introduction
- Subtraction of previous material (6/8 to 5/8) followed by addition in the final bar of the section back to 6/8
- Clear, simple examples of addition at the end of phrases
- ABAC metrical additive process on multiple levels
- Addition creating ABABAC additive metrical process during the Transition
- Text-related addition of an extra beat
- ABAC metrical additive and subtractive process
- ABAC metrical additive process on multiple levels
- Expansion of previous material
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<td>Addition of an extra beat at the end of each phrase</td>
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<td>1:25-2:12,</td>
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<td>2:36-3:21,</td>
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<td>Diminution in the first Verse, subtraction second Verse</td>
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<td>Contraction of previously contracted material</td>
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<td>6:16-6:23,</td>
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<td>9:14-9:17</td>
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<td>Text-related subtraction of a measure: 4+4+2, 4+2</td>
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<td>8:04-8:10</td>
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<td>In the Presence</td>
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<td>9:11-9:17</td>
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<td>10:35-10:58</td>
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<td>13:08-13:13</td>
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<td>Same as Pt. 1 at 0:01</td>
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Non-Scholarly Sources


**Compact Discs and Videos**


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______. *Black Clouds and Silver Linings [Special Edition]*. Roadrunner Records (1686-178835), 2009.
BIографическая сketch

Грегори Ричард McCandless был рожден в Брокпорт, Нью-Йорк, 1 апреля 1983 год. После окончания Brockport High School в 2001 году, he attended the University of North Carolina at Chapel Hill, where he studied jazz bass and composition under John Brown, Jim Ketch, and Allen Anderson, eventually earning a Bachelor’s degree in Bass Performance. In 2005, he began his graduate work in Music Theory at The Florida State University College of Music, and received his Master's degree in 2007 prior to enrolling in the school’s Ph. D. program. While completing his Master’s and Doctoral work, Greg was awarded graduate assistantships, which enabled him to teach the college’s entire lower-division music theory core curriculum, including Music Theory I-IV and Sight-Singing and Ear-Training I-IV, as well as Music Theory for Non-Majors. Greg has presented his research at conferences on the local, regional, and international levels, giving papers at The Florida State University Music Theory Forum (Tallahassee, FL, 2008), the Music Theory Southeast annual meeting (Greensboro, NC, 2008), The Second International Conference on Minimalist Music (Kansas City, MO, 2009), and The Sixth Biennial Conference on Music Since 1900 (Keele, England, 2009).