OVERWORLDS, TOWNS, AND BATTLES: HOW MUSIC DEVELOPS THE WORLDS OF ROLE-PLAYING VIDEO GAMES

by

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ABSTRACT OF THE DISSERTATION

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This dissertation observes how specific musical themes from early home console role-playing video games build worlds. It includes case studies from several games including *The Legend of Zelda*, *Dragon Warrior*, and multiple games from the *Final Fantasy* series. Discussed in detail are how specific gaming events such as the overworld, town, and battle each serve a specific function in the player's immersion into an imaginary world. Overworld themes are used to evoke a sense of place, town themes establish identity of the inhabitants, while battle themes provide intensity to a new form of gameplay. The music for each one of these gaming events contains specific harmonic, melodic, or rhythmic gestures that establish musical tropes that are used throughout this genre of game.

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Chapter 1: Introduction
How Music Functions in Role-Playing Games

Music is especially vital to role-playing video games (RPGs), in that it helps build an immersive experience for the player. From the title screen to the ending credits, RPGs typically feature dozens of musical pieces throughout the game in varying musical styles. Music serves multiple roles in RPGs: it accompanies the act of exploring places in a fictitious world, establishes a sense of culture among its inhabitants, and provides tension when battling monsters. This dissertation will examine the ways in which music is used in RPGs to accompany specific locations and types of gameplay, focusing on games designed for the third and fourth generation Nintendo home consoles: the Nintendo Entertainment System (released as the Famicom in 1983) and the Super Nintendo Entertainment System (released in 1990).

While there are myriad subgenres of video games, this study will focus on RPGs because of the grandeur and scope of the worlds they create. Within RPGs, standardized musical tropes and themes have emerged over time to serve a variety of purposes: 1) to help the player understand their character's location, 2) to develop the identities of the game's inhabitants, 3) to provide musical subtext to the game's story. RPG themes are typically composed in contrasting styles, which helps delineate specific gaming events. The contrasts between these themes help immerse the player in the game, as changes in style reflect the change in gameplay.

Functions of Video Game Music and Game Genre

Role-playing games are defined by an open gaming experience where the player controls a character or party through a fictitious world. These worlds are defined by geographic features, towns that possess their own unique identity, and a bestiary

specific to certain environments. Though the game designers have a specific plan for successful completion of the game, the player is free to explore the areas of this world in any order they wish.

If one views an RPG's soundtrack as a large composition consisting of several movements, there is a sense of malleability in the order in which these pieces are performed. Since the game is designed in such a way that the player may change the order of events as they please, the music is not necessarily experienced in the same sequence by every player. The non-linearity in video game music is evident in how music is used as a demarcation point. When gameplay changes, the music changes with it, and typically differs in style from the previously heard piece.

Despite this non-linearity, scoring a game is still similar to scoring a film since in both cases the music helps to support the story. However, game music goes one step further by reacting to the success or failure of the players. It is important to note the role of interactive and adaptive elements, as these are integral parts of what makes game music unique. Examples of interactive elements include when sounds are assigned to the swooshing of a sword, the casting of a spell, or when a character jumps. Common adaptive musical techniques include the music speeding up to let the player know time is running out, or an incessant beeping to indicate your character's health is low. Another difference from film scores is that game music is composed in a way that allows for seamless construction and endless looping. Since the time spent in each part of the game is variable, the composer cannot know how long the player will take to complete a given task and how long the musical cue should be.

Game music typically serves functions that correspond to specific gaming events.

In her book, *A Composer's Guide to Game Music*[1], Winifred Phillips breaks these functions down into categories:

- Music as a State of Mind: Certain musical elements can encourage an altered state of mind necessary for concentrating on the game. Each location in an RPG—the overworld, town, or battle—requires different states of mind as the gameplay requirements differ.

- Music as a World Builder: Specific instrumentation and a consistent musical style can be used to convince the player that they are a part of the game. This function is used extensively in RPG and adventure games, which are typically set in wholly-formed fictitious worlds.

- Music as a Pace Setter: Used mostly in action games, music generates the excitement necessary to motivate the player to perform precise button pushes with a gamepad. This function can also apply to battle music in turn-based RPGs, as the gameplay runs at a significantly different pace than the rest of the game.

- Music as an Audience: Adaptive musical techniques allow the music to respond to the player's actions and communicates the outcome of some events. This is usually in the form of a stinger such as a victory fanfare—a piece that only plays when you lose—or a quick series of chords that indicate you solved a puzzle.

- Music as Branding: A memorable melody is often clearly associated with a game, like a sonic logo.

- Music as Demarcation: Music that is greatly different in style signifies a change in gameplay, such as a light-hearted action mini-game that seems out of place in an otherwise dystopian RPG.

These functions are defined by the way that the music contains specific elements that serve a purpose. For example: instrumentation can be used to build worlds, while syncopated rhythmic figures are frequently used as a pace setter. The analyses in this dissertation will explore how specific musical gestures serve these functions.

A Brief History of Game Sound Technology

The advent of the home console of the 1980s allowed for gamers to enjoy a more straightforward and consistent gaming experience than that of existing PC games. Playing video games on PCs was problematic since various sound cards and processor

[1] Winifred Phillips, *A Composer's Guide to Game Music,* (Cambridge, MA: MIT Press, 2014), 97-116.

speeds produced inconsistent musical results, thus the same game's sound effects and music could sound entirely different on different machines.[2]

The Atari 2600, released in 1977, was one of the first home consoles. It was only capable of producing noise and pulse waves, and its tuning system was not equal tempered. Because these limitations made composing melodies difficult, the first video game systems simply provided interactive responses to the player's actions, rather than having musical themes.[3] The Nintendo Entertainment System (NES, 1983) brought polyphony—albeit limited—to the market. This breakthrough allowed game music to develop its own style, which was based on the specific sounds that the NES could produce. Thus, the new musical aesthetic of game music developed, which was improved upon in the next generation of systems like the Sega Genesis (1988) and the Super Nintendo Entertainment System (SNES, 1990). There have been significant developments in sound-producing capabilities during the subsequent generations, which was centered on increasing file sizes, allowing the use of pre-recorded audio, and also adding interactive and adaptive elements to the music.

Despite these improvements, the musical styles that evolved during the third generation of consoles (i.e.: the NES) are still important today. This is due to the fact that after the video game crash in the early 1980s, "Nintendo was [able] to capture the American market and prove to the public and to retailers that video games were here to stay."[4] As previously stated, prior to the NES, sound for games was limited to effects, and the NES was the first console to truly implement melodies. These melodies, especially the memorable ones from *Super Mario Bros.* and *The Legend of*

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[2] Karen Collins, *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design,* (Cambridge, MA: MIT Press, 2008), 28-33.
[3] Collins, 21.
[4] Collins, 24.

Zelda, became as significant to the branding of each series as their respective characters.

In early games, music and sound were of equal importance to visuals when it came to world building. With a limited array of colors and pixels used to create characters and environments, music filled in the gaps and helped players suspend their disbelief. Rod Munday argues how sound is important in creating game worlds. "In video games, it is worth remembering that computer-generated environments make no natural sounds: hence the importance of music and sound effects is to give them meaning."[5] The NES was able to accomplish this with simple waveforms, but the SNES took it one step further. Its audio engine allowed the use of sounds that resemble acoustic instruments, which enabled game composers to explore additional layers of meaning through timbre.

One of the problems with the sonic capabilities of the NES (not to mention even earlier consoles) is that all sounds were synthesized using only three basic waveforms. It is important to note how the sonic capabilities and limitations of the NES contributes to the timbral qualities of NES game music. Contrary to modern systems, where pre-recorded sound files are played back, NES game music is "performed" in real time on a sound chip, with lines of code used to generate pitch, rhythm, vibrato, etc. Also, the NES possesses a limited number of channels, restricting the composers' ability to write polyphonic music. The NES is capable of producing only one sound per each of its five channels[6]: the first two produce pulse waves (with duty cycle,[7] envelope, and volume adjustments available), the third produces a triangle wave

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[5] Rod Munday, "Music in Video Games." In *Music, Sound and Multimedia: From the Live to the Virtual*, edited by Jamie Sexton, (Edinburgh: Edinburgh University Press, 2007), 53.

[6] However, these channels could produce a large range of frequencies. The pulse waves have a range from 55Hz-12kHz, the triangle from 27Hz-56kHz, and the noise well beyond the range of human hearing. Collins, *Game Sound,* 25, 174.

[7] The duty cycle of the pulse waves could be adjusted to 12.5%, 25%, 50% (a square wave), or 75%, resulting in slightly different timbres.

(which could produce tones an octave lower than the pulse channels, but has no volume adjustment), and the fourth channel produces white noise. The fifth is a DPCM (differential pulse-code modulation) channel that can play short sampled loops of music or other pre-recorded audio at a very low sample rate and bitrate.[8]

The limitations of these early consoles presented certain challenges and composers had to create their music within these constraints. For example, limited polyphony made composing interesting harmonic progressions more challenging, since being able to only produce three simultaneous pitches made complex chords difficult, forcing the use of fast arpeggios to simulate the sound of a sustained chord. However, these limitations helped give game music its signature sound, as these compositional techniques are now a distinguishing feature of game music from this era.

One challenge of analyzing game music is that most of it is not recorded—it only exists as code—and the music can only be heard as the game is being played. There are various dubious MIDI files available on the Internet, which usually contain errors, or piano reductions released by the game company that are filled with neo-Romantic embellishments. For the sake of accuracy with respect to the music in the original game, the analyses of the music in this paper are based on transcriptions (created by the author) using software that separates the music into distinct sound channels, so one can hear each part separately to create an accurate score.[9]

Another challenge in analyzing video game music is using appropriate analytical methods. The music covered in this study is composed by Japanese composers, which raises the question as to what cultural standard the music should be compared. Despite

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[8] Collins, *Game Sound,* 25, 174.

[9] The NES games were played through an emulator called "Nestopia," (http://nestopia.sourceforge.net/) which allows the user to isolate each sound channel from the game's ROM. The SNES games were transcribed by bringing the game's .spc files into software called "Audio Overload," (https://www.bannister.org/software/ao.htm) which allows each of the eight channels to be isolated.

having origins in Japan, these games are a worldwide popular cultural phenomenon and were heavily marketed to both an Asian and Western audiences.

Western influence became prevalent in Japan during the Meiji Era (1868-1912), when Japan decided to end its isolation and became open to Western culture and religion. Through a collaboration in the 1870s between American musicologist Luther Whiting Mason and Japanese student Shuji Isawa, the study of Western art music had been adopted by the Japanese school system. Isawa returned to Japan after studying with Mason in the United States, and used his knowledge of Western music to establish a new music education curriculum in Japan. Eventually, along with the help of Mason, studies of Western music supplanted traditional Japanese music.[10]

This acceptance of Western culture also contributed to the popularity of American films and popular music (such as jazz fusion and progressive rock) among the Japanese. In addition, characters from Japanese games such as Mario and Link are undeniably Western in their design; the former is a stereotypical Italian-American plumber, while the latter was inspired by Disney's interpretation of Peter Pan. Because of this 100-year history, the soundtracks in these games tend to have more in common with music from the Western tradition than traditional Japanese music, therefore an analysis using the analytical techniques of Western music is appropriate.

An Early Example of World Building Through Contrasting Music

In Andrew Schartmann's book, *Koji Kondo's Super Mario Bros. Soundtrack*, he refers to the game's playlist as an "album," with the overworld theme, underworld theme, underwater theme, and castle theme as the four "songs."[11] Each of these

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[10] Tomoko Kanamaru, The Pedagogical Implications of Yoshinao Nakada's "Japanese Festival" (DMA diss., University of Cincinnati, 2006), 15-16.

[11] Andrew Schartmann, *Koji Kondo's Super Mario Bros. Soundtrack, (*Bloomsbury Academic 2015), xii.

compositions serves as an example of Phillips's concept of music as a "world builder" and sets the precedent for using location-based musical themes. The themes are connected in that they are composed specifically for the game and possess a similar sound palette, but are unique in that they are each contrasting in style. There are different themes based on the location of the player's character, including above ground, underground, in the water, and in a castle. In a video game soundtrack designed to evoke different locations, sonic and musical diversity is important. The use of these multiple contrasting musical themes in *Super Mario Bros.* was eventually adopted by other composers.

Even though the NES was unable to produce Koji Kondo's desired adaptive musical results, Kondo believed that "...dynamic music should showcase the participatory nature of a game, which might include changing the tempo, adding instrument layers, changing the position of music with character movements, or adding variability to the playback of phrases."[12] Restrictions in the sound-production capabilities of the NES made this difficult, but he was still able to create a dynamic experience through composing stylistically different musical themes.

The origin of the overworld theme in RPGs can be attributed to Kondo's score for *Super Mario Bros* (*SMB*). Prior to its release for the NES in 1985, the action in video games took place on a single black screen. The bright blue sky in the first level of *SMB* was aesthetically refreshing not only for its use of color, but for the fact that it scrolled as Mario advanced through the stage. This pioneering development in game design needed musical advances as well, and Kondo's score provided the necessary sense of movement in its bouncy rhythms and jazzy use of harmony.[13]

The use of these four contrasting themes foreshadows the way music builds

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[12] Collins, *Game Sound,* 140.
[13] Schartmann, *Koji Kondo's Super Mario Bros. Soundtrack.,* 22.

worlds in RPGs. Even though the gameplay in *SMB* is identical in both the overworlds and underworlds, the contrast in the music is stark and obvious. The overworld theme's bright major key and ragged syncopations provides a clear contrast to the underworld theme, which is noticeably darker, lower, and, according to Zach Whalen, "lacks a tonal center...and relies on tense chromatic passages."[14] Additionally, the use of unexpected borrowed chords and "sudden chromatic slippage" in the overworld theme became a staple in RPGs of this era.[15]

The underwater theme in *SMB* reflects a change in gameplay that is used when Mario is underwater. The gameplay in this setting is slightly altered, as the player now needs to repeatedly push buttons to make Mario swim. This marks a change in both setting and gameplay, and the music is appropriately altered to a soothing waltz in triple meter, whose flowing rhythms depict water. According to Andrew Schartmann, "[the underwater music] could easily fit within the early twentieth-century harmonic and melodic language of Tin Pan Alley songs, or waltzes composed to accompany film scenes…"[16] The idea of using contrasting musical themes was eventually adopted by other composers not only to demarcate a change in level, but also to create a richer score that highlights this shift in gameplay. RPG music applies the same demarcation concept to its gaming events. The contrasting styles in music for the overworld, towns, and battles enrich the world of the game as well as support the various forms of gameplay for each location.

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[14] Zach Whalen, "Play Along - An Approach to Videogame Music." *Game Studies* Volume 4 Issue 1, 2004. http://gamestudies.org/0401/whalen/. Accessed July 3rd, 2016

[15] Neil Lerner, "Mario's Dynamic Leaps: Musical Innovations (and the Specter of Early Cinema) in *Donkey Kong* and *Super Mario Bros.*" In *Music in Video Games*, edited by K.J. Donnelly, William Gibbons, and Neil Lerner. (New York, NY: Routledge, 2014), 14.

[16] Lerner, "Mario's Dynamic Leaps," 15.

Dissertation Overview

Recent research in ludomusicology tends to reflect on the history and technical capabilities of specific consoles, discuss new adaptive and interactive innovations of modern game engines, and present case-study analyses of a single game. Until recently, there has been a lack of a focus on the composition and analysis of how musical themes function in developing a game's world.[17] In RPGs, it is important to discuss how specific rhythmic motives, instrumentation, phrase modulation, and certain musical modes can be used to build and immerse the player into these worlds.

These tropes are used to create effective musical themes for overworlds, towns, and battles. While there are a wide variety of RPGs currently available, this study will explore precedent-setting examples from the NES and SNES, including *Dragon Warrior*, the *Legend of Zelda* series, and the *Final Fantasy* series. The way music works in these games has become the model for designing an effective game soundtrack.

Chapter 2 explores overworld themes, where music supports the map-based view of the game's world. In turn-based RPGs such as the *Dragon Warrior* and *Final Fantasy* series, the overworld is a navigable map where the player leads their character or party to icons that represent towns, castles, caves, and other features. These games randomly determine when your party will be forced into a battle sequence, with monsters that usually match the geography of the area you are exploring. The role of the music serves many functions, from describing the geographical features in sound, to providing the soundtrack for a temporarily peaceful moment, and to branding the game.

Town themes will be discussed in Chapter 3. This chapter focuses on how music

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[17] For the more recent scholarship on this subject, see Gibbons, W, and S Reale, eds., *Music in the Role-Playing Game: Heroes & Harmonies* (New York: Routledge, 2020)

is used in these municipalities, which encompass everything from a medieval hamlet to a post-apocalyptic industrial complex. Towns are generally known to be safe spaces in RPGs; there are no battles and they exist as a place to gather information, heal, and shop. The music implies a pleasant experience through its consonant harmonies and song-like melodies. However, when these towns are no longer safe or are occupied by an enemy, the music indicates this change in affairs by shifting to a drastically different style. The chapter will discuss how these themes develop identity and status of these towns in relation to the game's story.

Chapter 4 will examine battle themes. In RPGs, battles typically occur as a cutscene where the player's party must fight a group of enemies. These battles involve a completely different style of gameplay from the aforementioned examples. Appropriately, the music is typically composed in a contrasting style from other themes in the game, and tends to be faster, in minor keys, and often references rock music. Chapter 4 will also focus on how unique battle themes are used to indicate the difficulty of the encounter. A boss battle requires more intense concentration than a regular battle. These special battles mark the end of a significant event and the music both builds tension and serves as a demarcation point. A focus on final boss battles shows how this music rewards the player for successfully making it that far in the game.

Finally, the concluding chapter will discuss how these analytical methods can be used in future ludomusicological study, as well as the ways in which contemporary RPGs continue to employ similar musical techniques as their predecessors.

Chapter 2: Overworld Themes
Using Music to Evoke a Sense of Place in a Game's World

As one of the most prominent components of an RPG's soundtrack, the overworld theme helps establish the musical language and sound palette that is used in the game. This theme is heard throughout the game while traveling between various locations, including towns and dungeons, as well as between battles that take place as random encounters in the overworld.

The overworld theme fits well into several of Winifred Phillips's "functions of game music" categories, including "world building," "state of mind," "branding," and to a certain extent, "demarcation."[18] The instrumentation and musical gestures build the world, the rhythm and tempo help establish the player's state of mind, and the melody brands the game. In addition, the overworld is a safe space that does not require the player to interact with enemies or characters until a battle begins or the player enters a town or dungeon.

By looking at a number of case studies, this chapter will describe several ways that musical tropes in the overworld theme contribute to the overall mood of the game and produce a sense of exploration. These musical elements suggest heroism, war, evil, and safety, which are all popular tropes in fantasy-based games. Overworld themes are defined by the following musical traits: 1) mode mixture provides harmonic ambiguity and instability, 2) themes are composed of song-like conjunct shapes to create a recognizable melody and sense of familiarity for the player, 3) steady tempi with clear rhythmic patterns motivate the player to explore their surroundings, and 4) specific musical timbres are used to communicate the details of the player's location.

Select overworld themes will be analyzed to determine how the music helps

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[18] Phillips, "A Composer's Guide to Game Music," 97-116.

evoke a sense of place in the game. Analyses will be approached using methods developed by Rod Munday. In his article, "Music in Video Games," Munday divides his analysis into three categories—environmental, immersive, and diegetic—which work alongside Phillips's functions of music.[19] When one looks at video game music "environmentally," the goal is to discover how the music supports the perception of a game-world and specifically how the world's topography is represented in sound.

Munday describes the contrasting concepts of "cognitive" and "mythic" immersion as relating to the player's level of involvement in the game. According to Munday, "[c]ognitive immersion focuses on the way certain neuropsychological aspects of the brain are stimulated by videogame [sic] music to promote the player's involvement in the game."[20] "Mythic immersion," is when the game "provides a common currency of characters, settings and situations readily adaptable to imaginative play."[21] Also according to Munday, this mythic immersion is often evoked through association with the Wagnerian tradition of musical drama through the use of leitmotifs. In RPGs, musical themes are used to signify characters, places, and ideas within the game.[22]

As Munday states, "video games have aligned themselves with an aesthetic tradition of 'mythic drama' found in both opera and film."[23] Since RPG overworld themes are typically non-diegetic and non-interactive, the level of immersion is contingent on creating an appropriate state of mind. With ambiguous chord progressions, memorable melodies, and steady (un-syncopated) rhythms, the music associated with the overworld provides contrast to other gaming events.

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[19] Munday, "Music in Video Game*s,*" 51-67.
[20] Munday, 56.
[21] Munday, 58.
[22] Munday, 58.
[23] Munday, 58.

Building Worlds Through Harmonic Ambiguity

Two of the earliest RPGs, *Dragon Warrior* and *The Legend of Zelda,* were both originally released in 1986, and both spawned successful franchises. Despite significant gameplay differences—the former is a "turn-based" RPG, while the latter is an "action RPG," where battles take place in the overworld—common musical traits can be found.

The function of each overworld theme is based on the type of gameplay. As stated above, *Dragon Warrior* is a "turn-based RPG," where the overworld serves as a safe hub between random battles and locations like towns and dungeons. Thus, the overworld theme serves a world building function until the player enters a new battle sequence or a town or dungeon. *The Legend of Zelda* differs in that it is an "action RPG," which means it contains active monster encounters in the overworld rather than random battle encounters. This type of RPG has features of action games that require precise controller inputs in real time. The overworld is not "safe" as it is in *Dragon Warrior*, so the music serves as a pace setter in addition to being a world builder.

Despite these differences in function, there are similarities between the ways in which both themes are integral to the game's experience. For example, the use of ambiguous harmonic motion and chromatic mediant relationships can create a sense of wandering and exploration. These extra-musical associations can be traced back to the leitmotif for Wotan the Wanderer from Wagner's *Siegfried* (Example 2.1).[24] Wotan, a god in disguise, transforms himself in order to travel freely. This idea of unrestrained movement can be displayed in sound via chord progressions that do not adhere to common-practice rules of root movement.

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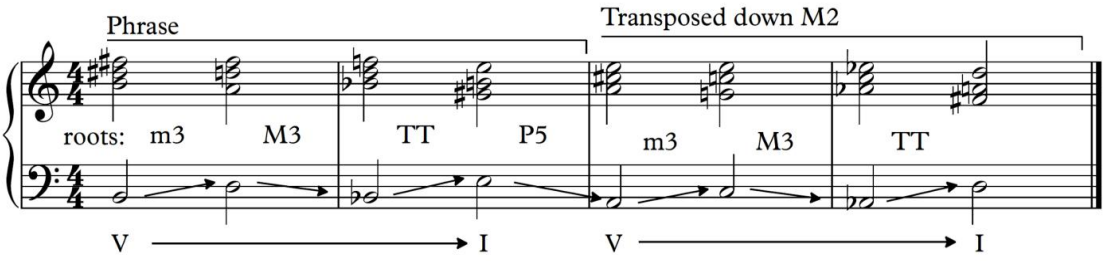
[24] Robert Donington. *Wagner's 'Ring' and its Symbols*. (London: Faber and Faber, 1963), 268.

Example 2.1: Wotan the Wanderer's Leitmotif, from Wagner's *Siegfried*[25]



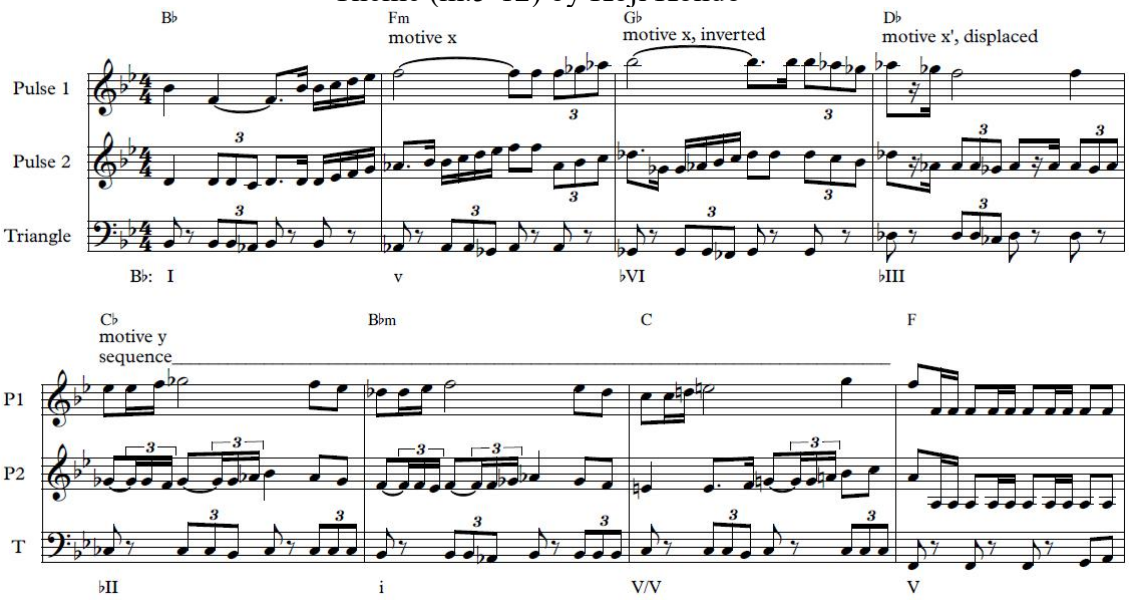
This leitmotif's harmonic drifting is akin to those used in similar themes in games where the player's characters venture through unexplored areas. According to Donington, Wagner's use of chromatic harmony "is suggestive of hidden workings," and in this specific example, a "dream-like or mysterious rendering."[26] These references to hidden workings and mysterious rendering take the idea of wandering one step further, making a connection to the unknown and mysterious, which mirrors the act of exploring in games. Therefore, this use of harmony—triads that do not resolve properly or as expected—is often used by composers to depict the hidden mystery of what awaits in this fictional and unexplored world.

The Legend of Zelda's overworld theme (Example 2.2), is similar to Wotan's "Wanderer" leitmotif through its use of harmonic excursions implied by the chromatic alterations in the three voices. Though both of these themes progress from I to V or V to I, the unconventional use of harmony between these chords is what makes them appropriate for exploration themes, as there are more chords borrowed from distant keys than there are in-key, functional chords. This treatment of harmony evokes a sense of wanderlust due the lack of resolution. However, there is always a cadence at the end to facilitate the necessity of endless looping, which is required by the open-ended nature of the RPG gaming experience. This example uses root movements from a Romanesca (I-V-vi-iii-IV-I-IV-V), but replaces several sonorities. Mode

[25] Reduced by the author.
[26] Donnington, "Wagner's 'Ring'," 263.

mixture occurs in measures 2, 3, 4, and 6 of the example, where the three musical lines imply chords from the parallel minor. In addition, the penultimate chord is a secondary dominant instead of the subdominant. The ♭II chord at measure 5, however, replaces the expected subdominant with a Neapolitan in order to continue the descending bass line. The player recognizes the sound of triadic sonorities, but this use of mode mixture evokes a sense of unfamiliarity, since the music cadences in major, but immediately ventures into the parallel minor. This use of borrowed harmony matches well with *Zelda*'s aesthetic, as the Kingdom of Hyrule is obviously an imaginary place filled with monsters, but it also contains topography that is recognizable on Earth.

Example 2.2: Melody and Harmonic Function in *The Legend of Zelda*'s Overworld Theme (m.5-12) by Koji Kondo[27]



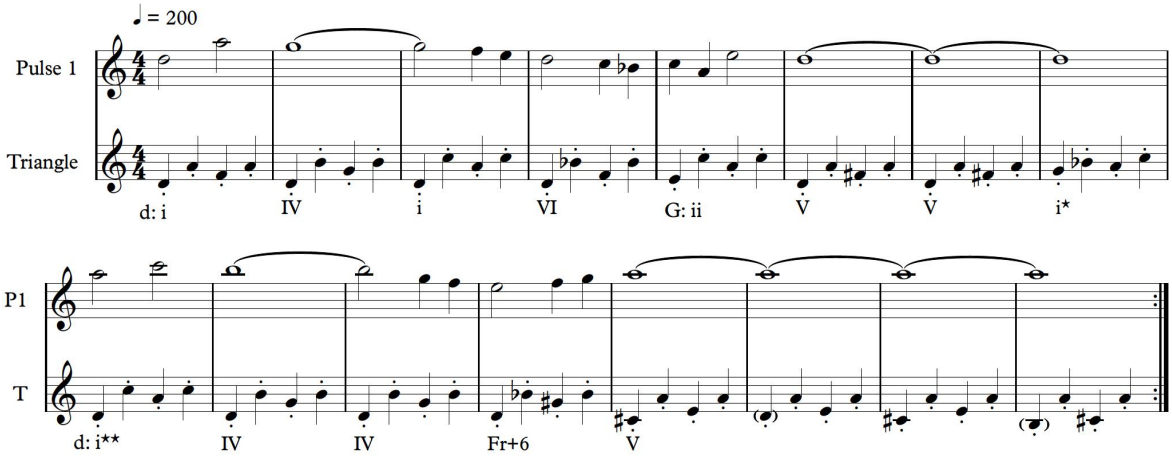
When observing the Roman numeral analysis provided in Example 2.2, it may appear problematic to label this example in the key of B♭ major, since there is little in terms of traditional harmonic function. Additionally, all twelve chromatic pitches are contained in the first eight-bar phrase; chromatic completion occurs when we hear the

[27] Harmonic analysis is implied through the three voices, with the melody shown.

leading tone at the penultimate measure. However, the tonic and dominant conveniently bookend the progression and establish the key. Since there is a trajectory towards a dominant, a new approach can be used to analyze this progression, as it can be viewed as being both in B♭ major and minor.

Though it does not experiment with harmonic function as the *Zelda* example in terms of chromaticism, the harmony in *Dragon Warrior'*s overworld theme (Example 2.3) borrows the tonic and the subdominant of its parallel major. Because of this unexpected change in mode, this harmonic shift makes this theme appropriate as a background for a gaming event that involves exploration and the unknown. The music wanders between key areas as the player makes their way through this fictitious world.

Example 2.3: *Dragon Warrior*'s Overworld Theme"Unknown World" by Koichi Sugiyama[28]



* Implied chord, used as a transition and pivot
** Implied chord, no third

The ambiguity of the mode is caused by a cadence scheme that does not meet traditional expectations. The harmony alone can be analyzed in either D major or D minor. The G and D chords belong to the former while the Dm (or m7), B♭, Am, and Gm work better with the latter. The E7♭5 (functioning as a French augmented sixth)

[28] All titles in this dissertation are from the Video Game Music Preservation Foundation.

and A chord create a clear cadence that could belong to either mode. However, the resolution to a clear D minor triad after the loop confirms the key.

The major/minor dichotomy in these themes raises the question of the overall function of overworlds: does the overworld theme indicate a temporary safe place or impending danger? Since there are no visible monsters in the overworld (in turn-based RPGs), it temporarily functions as a safe space, and the overworld theme is originally associated with this safety. However, random battles can begin immediately after your character starts moving, bringing the player into a cutscene with new gameplay and music (discussed in Chapter 4). The use of both major and minor keys could signify this impending danger, with the major indicating the temporary safety and the minor suggesting the imminent battles.

Like *Zelda* and *Dragon Warrior*, the first game in Square's *Final Fantasy* series also uses one overworld theme throughout the entire game. Originally released in 1987 (making it to North America in 1990), *Final Fantasy* is an epic RPG with significantly more musical cues[29] than other games of this era.[30] Though the game employs multiple overworld themes—one for traveling on foot or in a canoe, another when the player's party is on a pirate ship, and another when the party is aboard an airship—the "on foot" theme ("Main Theme") is the most significant to world-building and branding the game.

When compared to the overworld music in *Dragon Warrior* and *The Legend of Zelda*, *Final Fantasy*'s follows a more traditional harmonic model and a tonal, functional analysis is easily applied (Example 2.4). The first eight measures simply

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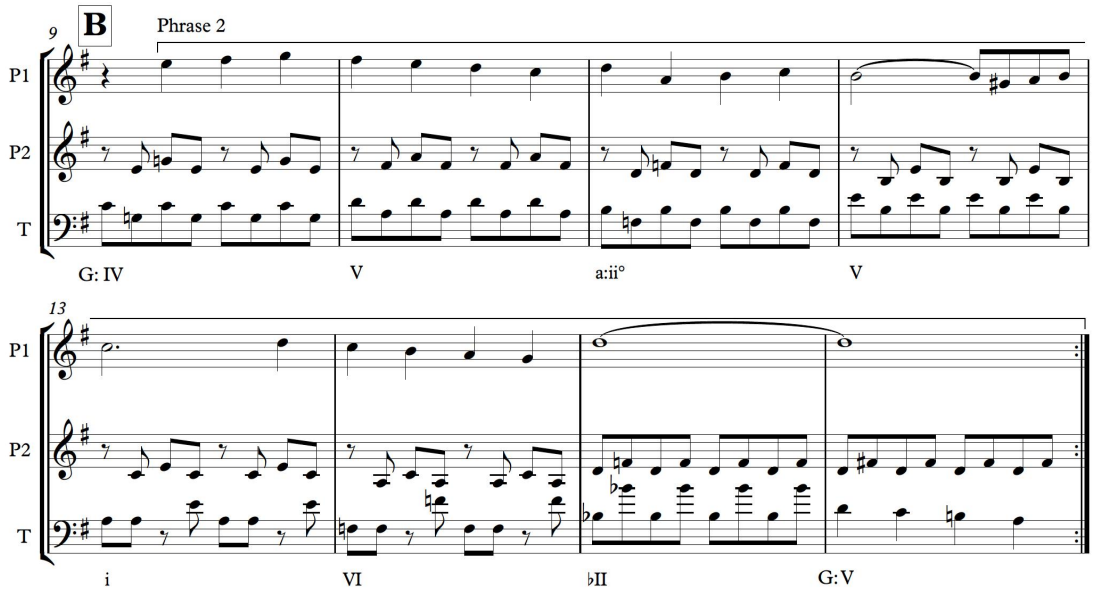
[29] All musical pieces in video games can be referred to as a "cue." A "theme" serves a specific purpose, such as for the gaming events discussed in this paper.

[30] Final Fantasy (NES). Video Game Music Preservation Foundation. http://www.vgmpf.com/Wiki/index.php/Final_Fantasy_(NES). The track list on this database is comprehensive, but the titles are sometimes misleading, as sometimes the piece may be used in more than one gaming event and thus serves more than one function.

consist of a melody over a tonic and dominant, which is then transposed to the key a diatonic second above. The second phrase consists of a pair of chords that function as a pre-dominant and dominant in G major, followed by a pre-dominant and dominant in A minor, eventually cadencing on i. One would expect the B♭ triad (m.15) to serve as a Neapolitan pre-dominant, but it instead moves to the dominant of the home key of G, allowing for a seamless loop to the home key. This use of chord pairs that only connect through a common tone is a shared trait among these overworld themes. Though not as tonally ambiguous as the previous two examples, there is a sense of chromaticism, as the 16-measure theme only omits the pitch-classes C♯ and D♯.

Example 2.4: Melodic and Harmonic Exploration in the "Main Theme" from *Final Fantasy* by Nobuo Uematsu



These examples demonstrate how harmonic progressions that do not follow a traditional trajectory can produce a sense of exploration. Non-diatonic chords and progressions that drift away from the tonal center immerse the player in the game by setting up a harmonic approach that is foreign from what is expected in tonal music. *Zelda* makes use of wandering chords through chromaticism, *Dragon Warrior* utilizes mode mixture, and *Final Fantasy* is more traditional in its use of modulation, but also borrows chords from other keys.

However, this raises another question—how does *Final Fantasy's* overworld theme suggest a sense of exploration if the harmonic progression is far more traditional, and thus predictable than its contemporaries like *Dragon Warrior* and *The Legend of Zelda*? In addition to harmonic progression, elements of the melody, including melodic shape and rhythm can also produce a sense of wanderlust.

Heroism Through Melodic Shape

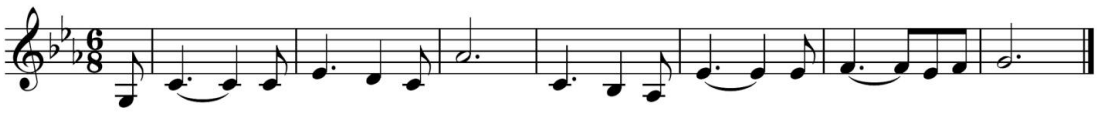
In addition to serving as a world builder, the overworld theme also helps with character development and branding the character or party as a hero. Specifically, the use of major keys in overworld themes (and in *Dragon Warrior*'s case, borrowed

major chords in minor keys) combined with melodic shape point to the idea of "heroism." This association stems from classical music, as several works use major keys combined with the rhythm of the fanfare to portray heroic themes.[31]

Consonant melodic intervals on strong beats have often been associated with heroic topics. Robert Hatten, who references Leonard Ratner's *Classic Music* (1980), points out several fanfare figures in Beethoven's String Quartet in B♭, Op. 130, which he says "might suggest a highly stylized heroic element."[32] These motives consist of rhythmic figures of two quarter notes followed by two eighth notes all on the same pitch, terminating on either an ascent of a fourth or descent of a fifth.

Another example is the opening gesture of Siegfried's theme from *Die Walküre*, which also begins with a rising perfect fourth (Example 2.5).[33] The three RPGs previously discussed all derive their melodic material from similar perfect intervallic shapes: *The Legend of Zelda* begins with a descending fourth, *Dragon Warrior* with an ascending fifth, and the scope of the first phrase in *Final Fantasy* spans a fourth as well.

Example 2.5: Siegfried's Theme from *Die Walküre*



The simple idea of opening a motive with a perfect interval is what remains constant as Siegfried's character transforms throughout the opera. According to Robert Donington's catalog, several of Siegfried's leitmotifs—which he labels as "Siegfried's heroism as acceptance of his destiny," "Siegfried's anger," and "Siegfried's horn call"— all use this same beginning idea, even if the rhythm and

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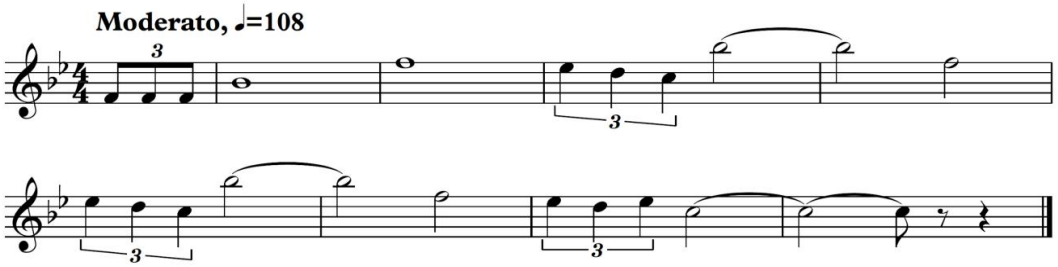
[31] Robert Hatten, *Musical Meaning in Beethoven: Markedness, Correlation, and Interpretation*. (Bloomington, IN: Indiana University Press, 1994), 36.
[32] Hatten, *Musical Meaning in Beethoven*," 144.
[33] Donington, "Wagner's 'Ring'," 279.

context is changed.[34] Likewise, these strong intervals remain intact, thus maintaining this association that perfect intervals invoke the stability and confidence associated with heroism. Films often borrow this idea from opera, for example the title theme from the Star Wars franchise (Example 2.6), which uses this interval to create a "heroic" theme with a strong sense of branding. This theme begins with three pitches that span a perfect octave, being divided first as a fourth followed by a fifth. This treatment of melody is similar to the aforementioned examples. American films have consistently been popular in post-World War II Japan,[35] and Star Wars is a no exception. The melodic shape of the *Zelda* example therefore can trace its ancestry to Western Art Music through film, as the music from Star Wars heavily borrows from Prokofiev, Stravinsky, and Wagner.

Example 2.6: The "Main Title" Theme from *Star Wars* by John Williams



The melody from the *Zelda* theme (Example 2.2) features fanfare figures and intervallic patterns that are also found in the previous example of "heroic" music. Beginning with the descent of a perfect fourth, the first three measures outline an octave (from B♭4 to B♭5), and the loop is approached by the ascent of a perfect fourth. This strong melody also helps justify the unconventional chord progression. It always begins and ends on chord tones, which emphasizes the uniqueness and surprise of

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[34] Donington, 279.

[35] Hiroshi Kitamura, *Screening Enlightenment: Hollywood and the Cultural Reconstruction of Defeated Japan*, (Ithaca: Cornell University Press, 2010), ix-x. According to Kitamura, "United States film studios launched a large-scale cinematic campaign to spread their movies and values across Japan" during the years of 1945-52. Over 600 American films at been released in Japan during this period, which created a "lucrative and dependable film market."

each sonority, with non-chord tones used only on weak beats. The clear motivic rhythmic development on the borrowed chords also ties it together. Measures 5-7 all begin with a rhythmic figure from a fanfare.

Its rhythmic uniqueness helps brand the melody. The gesture labeled "motive *x*" (see Example 2.2) is defined by a long tone followed by rising conjunct motion. It is inverted in the third measure, then the "snap" motive with the syncopated sixteenth note is displaced from beat three of measure three to beat one of measure four. The next motive (motive *y*) shares the same melodic contour as *x*, but the rhythm is offset to the longest tone ringing from beat two to the end of three (as ushered in by measure four), as a diminution of measures two and three. Sequential motion of this idea brings us to the secondary dominant and then measure eight is used as transitional material both melodically and harmonically.

This melodic material is presented over the chords that are best described as transformations rather than functions. The ones that work traditionally are treated differently (the first and the last, with the penultimate being a hybrid—as it matches the rhythm of motive *y* but contains a disjunct pitch). This method of analysis works for *Zelda*'s theme, but game themes also apply a more traditional use of functional harmony. In addition, this use of an uncommon chord progression is reminiscent of the wandering trope in Wotan's leitmotif (see Example 2.1).

The heroic trope also evokes a sense of nostalgia. The word "nostalgia" comes from the Ancient Greek theme of "Nostos," which was a poetic genre about a hero returning home by sea.[36] In Anna Bonifazi's article, "Inquiring into Nostos and Its Cognates," she discusses the ways returning to home is depicted in tales that involve

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[36] Anna Bonifazi, "Inquiring into Nostos and Its Cognates," *The American Journal of Philology* 130, no. 4 (2009): 481.

battles and "escaping death."[37] These two topics are especially common in the plots and gameplay of video games. The use of nostalgic themes is also apparent in folk music, and there are traits of folk music in overworld themes.

The overworld theme in *Dragon Warrior* takes a slightly different approach to melody, as its simplistic musical characteristics are akin to that of an American folk song. It is based on a clear harmonic progression and an easily-singable melody, which is made up of mostly long tones on strong beats. According to Susan Key, American folk music, like that of Stephen Foster and his contemporaries, uses similar musical traits to invoke a sense of nostalgia.[38] The common features among these folk songs are "step-wise melodies of limited range," the predominance of I, IV, and V chords, and four-measure phrases.[39] The harmony in these songs always returns to the tonic with a clear cadence, the rhythm does not break its quarter-note pulse, and the melody is easily singable and conjunct, which are all traits of *Dragon Warrior's* overworld theme. Again, the idea of returning home—especially after being in uncharted territory (or in a distant key)—is a feature of both heroic and nostalgic themes.

Melodically, there is an abundance of chord tones in this example, with all dissonance being provided by the accompaniment. This simple melody on top of the folk-like accompaniment also begins with an ascending fifth, which is another use of a hero motive. Despite the game's medieval imagery and subject matter, its use of harmony and chromaticism suggests heroism with tropes from the aforementioned film and folk music, as opposed to medieval music.

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[37] Bonifazi, "Inquiring into Nostos and Its Cognates," 496.
[38] Susan Key, "Sound and Sentimentality: Nostalgia in the Songs of Stephen Foster," *American Music* 13, no. 2 (1995): 146.
[39] Key, "Sound and Sentimentality," 157.

Though *Final Fantasy*'s overworld theme is more traditional in its use of harmony, its melody follows trends set by the previous two examples. Though the dissonances fall on the strong beats and consonances on the weak beats, the melody is conjunct and rhythmically simple like in the previous examples. The second four bars are identical to the first, but transposed (by way of phrase modulation) a step up to the key of A minor (with the raised sixth and seventh), thus showing the importance of repetition. The melody spans an octave (from G4 to G5) another melody built on a strong, perfect interval that invokes heroism but avoids the excursion to distant keys.

Pace Setting Through Rhythmic Stability

The use of a distinct, consistent rhythmic pattern in each of the overworld themes described above provides the player with a steady, pace-setting pulse. However, each approaches rhythmic stability differently: the theme from *Zelda* is based around a triplet fanfare, *Dragon Warrior* consists of a steady Alberti bass, and *Final Fantasy* features a combination of bass lines that repeat one note (sometimes in alternating octaves).

The use of Alberti bass is common in NES games since sound designers could not adjust the volume of the triangle-wave channel that is typically used for the bassline, so accent patterns were determined by the rhythmic placement of notes in an arpeggio.[40] At an equal dynamic level, beats one and three will feel inherently accented.[41]

Rhythmically, *Dragon Warrior*'s theme is more simplistic than the other examples. The accompaniment is made up entirely of quarter notes, with the lowest

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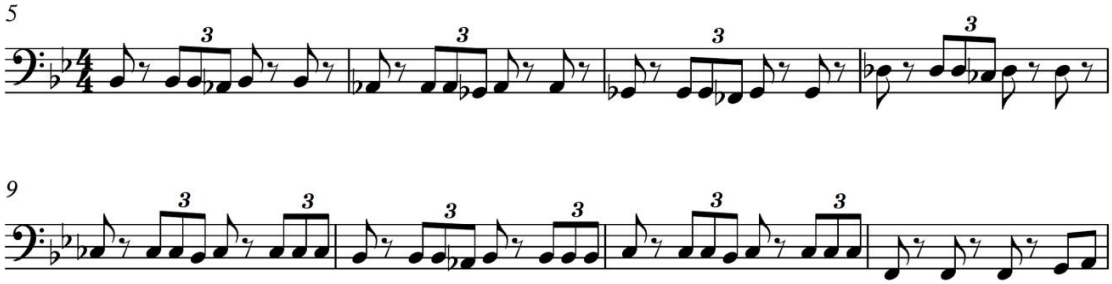
[40] Karen Collins, *Game Sound*, 25, 179.
[41] Justin London, *Rhythm in twentieth-century Theory*. The Cambridge History of Western Music Theory, Edited by Thomas Christensen. Cambridge University Press.

note of each measure appearing on beat one and the highest on two and/or four, referencing Alberti bass, which grounds the otherwise unfamiliar chord progression.

This idea of a constant rhythmic pattern is not only found in *Dragon Warrior*. *Zelda*'s overworld theme has a consistent triplet undercurrent providing an ostinato bass (Example 2.7), which is also reminiscent of the heroic themes from John Williams's *Star Wars* score (see Example 2.6). This specific rhythm plays an important role in the theme because of its contrast with the more rhythmically varied melodic lines and chromatic harmony. The square-wave melody is a mixture of several different divisions of the beat that contain complicated combinations of eighth notes, triplet eighth notes, and sixteenth notes (see Example 2.2). However, the bass line is steadier, grounding the rhythmically complex melody.

Example 2.7: The Bass Line from *The Legend of Zelda*'s Overworld Theme (m.5-12)



The overworld theme in *Final Fantasy* only drifts away from its syncopated chord-tone-based melody in the second section of the piece. This steady, repetitive rhythm is meant to act as a pace-setter for the player, as anything too syncopated or difficult to follow would be distracting. Its use of mostly straight quarter notes again implies folk song as in the *Dragon Warrior* example. However, the pulsing staccato effect (see Example 2.4) provides a contrast, pushing the piece forward at a speed that seems to be double the melody's tempo.

World Building Through Instrumentation

Instrumentation is not a factor in the previously-discussed themes since early consoles are only able to produce simple waveforms. However, the fourth-generation gaming consoles (such as the SNES) use a more sophisticated sound engine that can emulate acoustic instruments, thus adding to the timbral complexity of the game's sound palette. In addition to increasing timbral variety, specific instruments can produce an additional layer of meaning in the music. The player can connect preconceived notions of these instruments—such as the connection between trumpets and war or flutes and nature—to the game's story. *Final Fantasy IV* (1991)*, Final Fantasy VI* (1994)*,* and *Secret of Mana* (1993), all released for the SNES in North America, use instrumentation and timbre in their overworld themes to communicate a change in location or state of affairs to the player.[42]

According to Robert Hatten, contrasts in instrumentation are one of the many "means of marking material" that lead to signification.[43] In these examples, the classical symbology of each instrument abounds, and the overworld theme provides information to the player not just through musical gestures, but through instrumentation as well.

For example, several games use the flute for its magical connotations, since the trope of a magical flute comes from fantasy literature and is common in game music. The flute is used diegetically in games in the *Zelda* series.[44] In the first game, the player's character Link plays a flute—specifically a recorder—to summon a tornado

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[42] Since the sounds are not actual recordings of instruments, all references to instruments are assumed suggestions. Sometimes a patch that is "supposed" to be a violin will occasionally play a note below G3, just as the trombone parts may require flute-like agility. In addition, several sound patches are open for interpretation and are a subject of discussion among ludomusicologists.

[43] Hatten, *Musical Meaningin Beethoven*, 267-268.

[44] The third generation consoles only produced sounds through simple waveforms, so the flute sound was only suggested by a pulse wave with a coinciding visual image. Therefore, this is a very early example of how these games attempted to reference instruments, even though the sound used was not a sample.

to transport him to another part of the world. In its sequel, *Zelda II: The Adventure of Link* (1987), the flute is used for both making the River Devil magically disappear (which opens a path) as well as for uncovering a hidden palace. Finally, in *The Legend of Zelda: A Link to the Past* (SNES, 1991), Link plays the ocarina—a type of flute—to resurrect a bird that can be used to instantly transport him to various locations in the overworld. According to Theodore Grame, the flute is often associated with resurrection, thus making it an appropriate choice.[45] This connection between birds and flutes, like in the latter example, also comes from its use to depict birdsong in the music of Beethoven and Messiaen.[46]

The connection between brass and percussion instruments and military events represents another common trope used in game music. This association, however indirect, most likely comes from the rituals used to sacrifice animals in order to create instruments, such as the ram's horn and animal skins to attach to the drum.[47] Today, brass and percussion are the most prominent instruments in military bands. Beethoven's *Wellington's Victory*—a piece written to commemorate a battle—begins with snare drums and trumpets, and relies heavily on them throughout. Also, Tchaikovsky's *1812 Overture* adds an additional "brass band" during its finale, which famously features cannons on stage. When these tropes are used in an overworld theme, the martial connotations associated with these instruments remind the player the current state of affairs.

Final Fantasy IV (FFIV) and *Final Fantasy VI (FFVI)* are both expansive games with several pieces of overworld music, though each game's musical style is

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[45] Theodore Grame, "Sounding Statues: The Symbolism of Musical Instruments," *Expedition*. Fall 1973: 33.
[46] Tropes representing pastoral topics will be discussed in more detail in the next chapter.
[47] Grame, 33.

distinctive.[48] *FFIV* contains several of the aforementioned features in its initial overworld theme: ambiguous harmonic progressions, singable folk-like melodies, and simple rhythms, while *FFVI* is more traditional in its use of tonality. What sets these apart is the use of instrumentation to communicate meaning, especially in *FFVI*, where re-orchestrated themes are used when different events occur.

In *FFIV*, your party journeys underground and to a moon. In each of these locations, there is a specific variation of the original overworld theme. In *FFVI*, the overworld music is replaced after an apocalyptic gaming event throws your party into "The World of Ruin." This is similar to *The Legend of Zelda: A Link to the Past*, where throughout the game, Link travels between two worlds, the Light World and the Dark World. Each world has its own musical theme that matches with the change in visuals and difficulty; the Light World is in major while the Dark World is in minor. In *Secret of Mana* there are several overworld themes that change depending on your party's location. The factors are either geographical—desert, mountains, or a tundra; or "racial"—based on the imaginary race of the land's inhabitants (for example, dwarves or moogles). Also in *Secret of Mana*, certain changes in mode, instrumentation, rhythm, and harmonic language correlate with these locations, and are now heard across games with different composers.

The first overworld theme in *FFIV*, "Main Theme of Final Fantasy IV" (Example 2.8),[49] is grander in scope than third generation console games such as *Dragon Warrior* and the original *Final Fantasy*. It consists of two sections that total 44 measures with a large number of instruments and more layers of polyphony. Since the sounds are not generated by simple waveforms, they are more closely related to their

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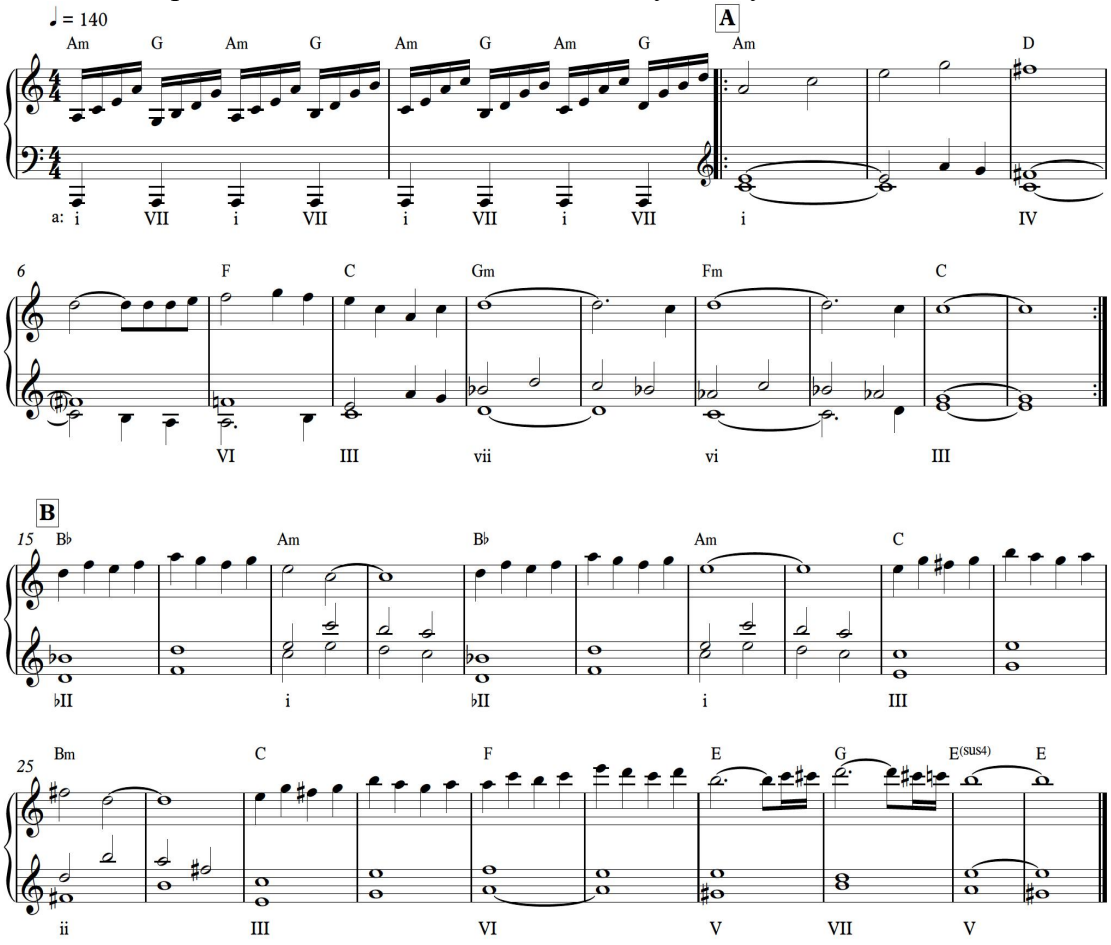
[48] Originally released in North America for the SNES as *Final Fantasy II* and *Final Fantasy III* in 1991 and 1994, respectively.

[49] Original soundtracks of Final Fantasy IV. http://finalfantasy.wikia.com/wiki/Original_soundtracks_of_Final_Fantasy_IV

acoustic counterparts. A flute-like-instrument plays the melody over top of a number of accompanying, middle-ground parts. The harp provides the harmony through constant arpeggios along with a pad of strings. In addition to these classical instruments, an electric bass and drum set make up the rhythm section.

Example 2.8: "Main Theme of Final Fantasy IV" by Nobuo Uematsu[50]



As in the previous examples, there is much tonal ambiguity and mode mixture. This is first evident at measure five, where the D major chord briefly suggests the Dorian mode. The Aeolian mode is quickly reaffirmed in the next measures, but is followed by a minor vii and minor vi. The theme has more in common with the harmonic language and exploration used in *Dragon Warrior* and *The Legend of Zelda* than the more tonal example from the original *Final Fantasy*. Worth noting is the

50 Reduced by the author. The melody is on the top staff, with accompaniment below. The chord symbols refer to the arpeggiated chords in the harp.

contrasting B section, as it culminates in the piece's only clear cadence back to A minor.

Further into the game, the player's party eventually makes its way underground to the "underworld," which is inhabited by mythical Dwarves. Despite the underground setting, this location is still an "overworld" in terms of gameplay, and there is a new overworld theme, "Land of Dwarves (Example 2.9)"[51] This music is a variation of the "Main Theme," keeping the melody and most of the harmony intact but varying the other musical elements. The change in instrumentation provides a new distinctive texture, as the harp arpeggios are gone, and there is a more prominent electric bass line. In addition, the key is a fifth higher, the phrase is condensed to 26 measures, the rhythm section (bass and percussion) is heavily syncopated rather than stable, and the sonorities are expanded vertically for more dissonance. The familiar melodic contour and chord progression help the player associate this new land as an overworld but the different instrumentation and texture portrays the Dwarven world as separate from the world of humans.

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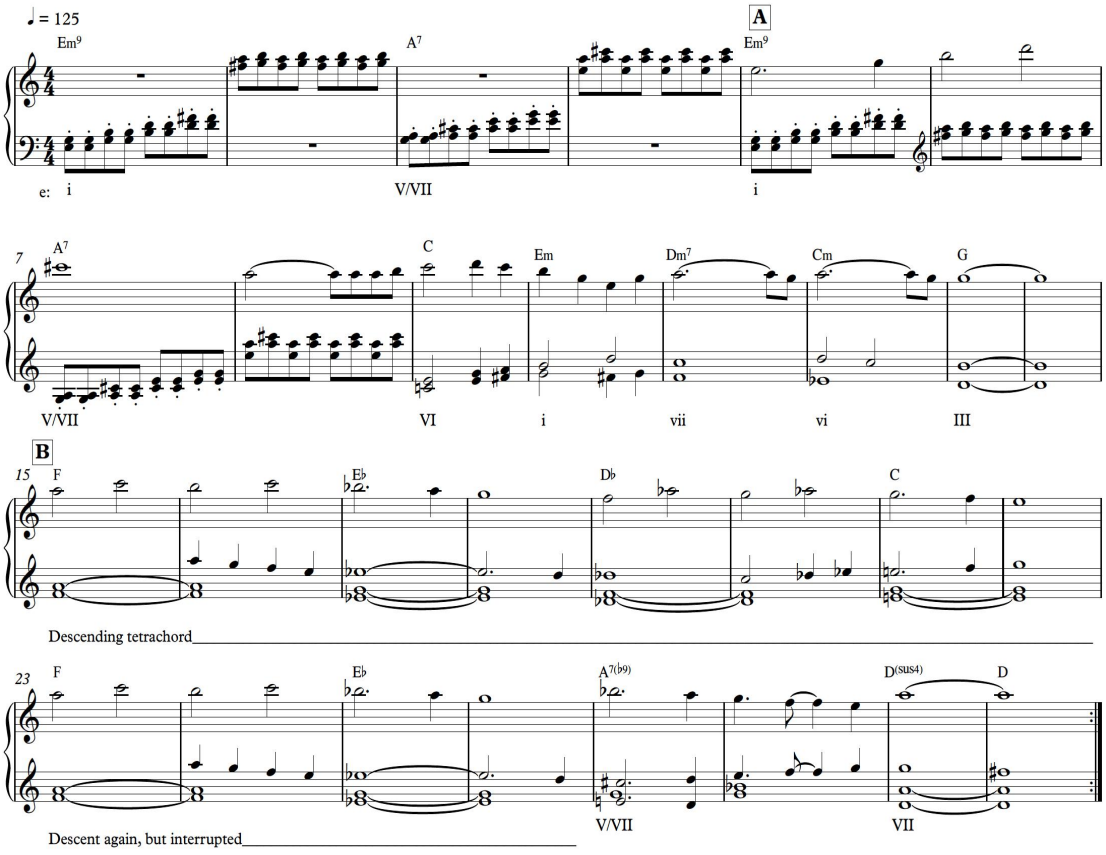
[51] Original soundtracks of Final Fantasy IV. http://finalfantasy.wikia.com/wiki/Original_soundtracks_of_Final_Fantasy_IV

Example 2.9: “Land of Dwarves” by Nobuo Uematsu[52]



The final overworld theme in *FFIV*, “Another Moon,” is only heard when your party explores the surface of their planet’s moon. The music’s texture matches the lunar surface accordingly, evoking a sense of desolation through the lack of melodic activity and harmonic progression. In addition, some timbres are not easily recognizable as acoustic instruments and unique to this section of the game. “Another Moon” is orchestrated for what sounds like timpani, heavily-processed trumpets, and unrecognizable synth sounds with much glissandi. The unfamiliar timbre of the processed trumpets and the glissando synths resemble the sounds of falling interstellar objects as depicted in science fiction. The only sound that can easily be associated with an acoustic instrument would be the slowly-moving strings. A lethargic oscillation between an F and C pedal never subsides, providing a strong contrast to

[52] Reduced by the author. The melody is on the top staff, with accompaniment below. The chord symbols refer to the overall harmony including the bass line.

the more harmonically complex overworld themes. These foreign textures only appear in this theme, communicating to the player that they are in a new world that has no connection to their home planet.

Nobuo Uematsu and Square took overworld themes one step further in *FFVI*. The music in *FFVI* plays a crucial role in telling its story, analogous to an interactive opera.[53] Leitmotifs, comprised of lyrical melodies that lie naturally in vocal tessiture, refer to characters, locations, and emotions. As William Cheng states, these leitmotifs "[speak] for characters whose dialogues appear as soundless captions."[54]

There are multiple main overworld themes in the game that change after certain events occur. The player spends roughly the same amount of time in the "World of Balance" as they do the "World of Ruin." The former features a piece known as "Terra's Theme" (Example 2.10), named after the protagonist and the first playable character.[55] The "World of Ruin" begins with a piece entitled "Dark World," which is replaced by "Searching for Friends," after the player's party uncovers the airship from a tomb.[56]

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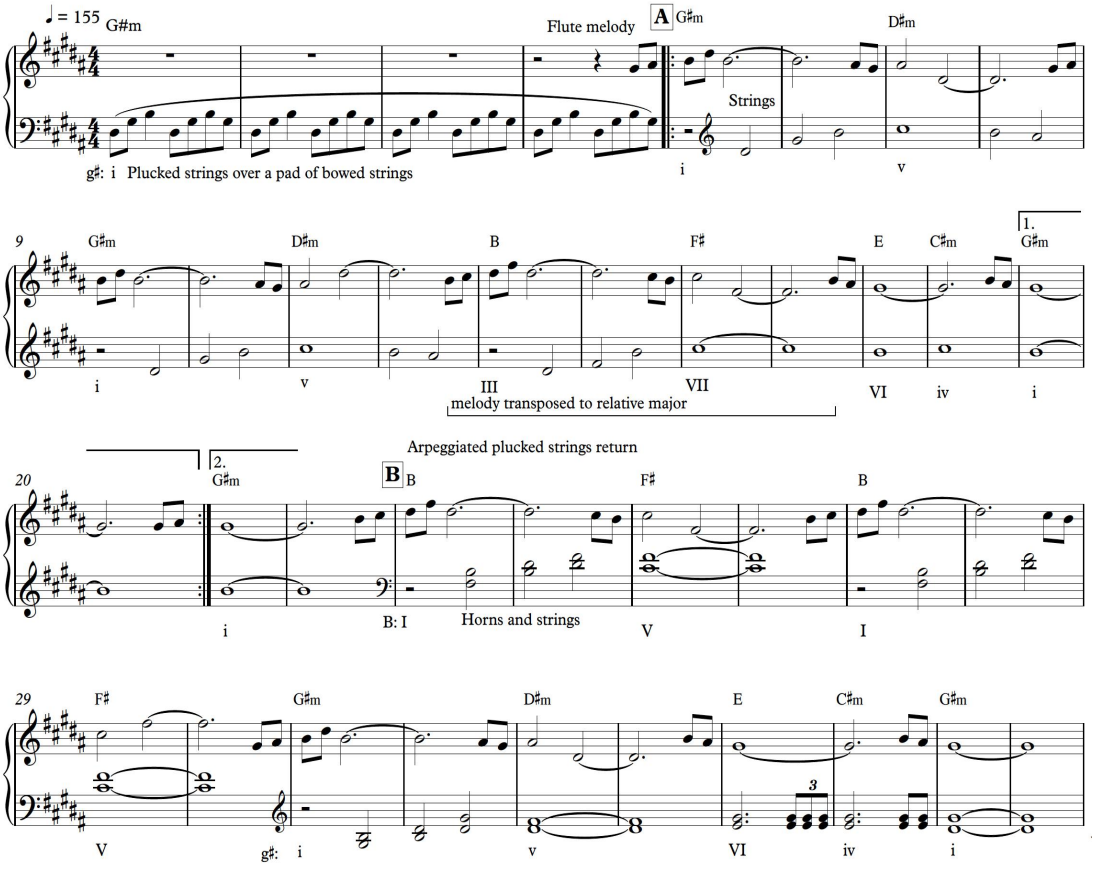
[53] There is an interactive opera scene within the game—which has been discussed in detail by several ludomusicologists—where the player chooses which line of text comes next in the soprano's aria. This scene serves as a microcosm to the entire operatic nature of the game. To further the operatic analogy, the game's ending credits begin with an image of a living book—perhaps a libretto—whose pages magically turn as the cast of characters are each displayed in their own vignette, like the credits in a film. For further reading and analysis on this subject, see Ryan Thompson, "Operatic Conventions and Expectations in *Final Fantasy VI*," *Music in the Role-Playing Game: Heroes & Harmonies,* (2020): 117-128

[54] William Cheng, *Sound Play* (New York, NY: Oxford University Press, 2014), 81.

[55] Video Game Music Preservation Foundation. http://www.vgmpf.com/Wiki/index.php/Final_Fantasy_2I_(SNES)

[56] VGMPF

Example 2.10: The A and B sections of "Terra's Theme"[57]



"Terra's Theme" also serves as her leitmotif, telling the player that Terra is the main character. The player hears this theme frequently while in the overworld, but this music also plays when Terra is referenced in the game's several cutscenes, either on-screen or by name. Her theme is a fusion of both magical and militant tropes, which is a musical way of depicting her background. Her father is an Esper (a magical being in the game's mythology) and her mother is human; her half-breed status intrigued Emperor Gestahl, who abducted her and raised her as a weapon for the Empire.[58] This part of her biography is told through the use of symbolic timbres and musical tropes in her leitmotif.

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[57] The melody is on the top staff, with accompaniment below. The chord symbols refer to the overall harmony. Orchestration notes are included to show texture changes.

[58] *Final Fantasy Wiki*, s.v. "Terra Branford," (accessed July 1, 2017), http://finalfantasy.wikia.com/wiki/Terra_Branford

Scored for what sounds like a small orchestra, the use of a marching snare drum ostinato suggests war, but the flowing flute melody with a pad of strings provides contrast. Horns are added in the B section, which eventually replaces the flute with a new texture in the C section (Table 2.1). The use of an acoustic guitar gives the sense of a traveling minstrel, as the guitar is an instrument traditionally associated with folk music. Terra's half-human and half-magical heritage is shown through her musical theme containing both militant and magical tropes.

Table 2.1: The C section of "Terra's Theme"

Measure	**1-2**	**3-4**	**5-6**	**7-8**	**9-10**	**11-12**	**13-14**	**15-16**	**17-18**
Harmony	B	E	C#m	F#	D#m	G#m	C#m	F#sus4	F#
Function	B: I	IV	ii	V	iii	vi	ii	V(sus)	V

To create a grandiose atmosphere, this theme includes several new layers of instruments. However, it takes a different approach to overworld music than earlier games. The harmony is less ambiguous, adhering to more traditional orchestral idioms, perhaps referencing Terra's association with the law and order of her militant upbringing. The avoidance of a clear leading tone helps deter cadences, giving the progression a sense of harmonic stasis, which is emphasized even more by the ostinato. However, it still contains the use of steady rhythms and a smooth, conjunct melody.

The theme from the A section is transposed to the relative major in the B section, with additional layers of instruments for accompaniment, serving as an expansion of the original idea. The C section serves as transitional material, as it features arpeggiated chords and follows a traditional harmonic sequence with the guitars changing to horns for more variation. This use of instrumentation suggests that the themes in *FFVI* are more centered on character development rather than gaming function.

Overworld themes are used differently in the action-RPG SNES game *Secret of Mana.* It is innovative for its use of multiple overworld themes, which not only depict the player's location in sound, but also indicates certain plot events. The table below summarizes these themes and how their distinguishing musical characteristics and instrumentation help match the geography to which they are assigned (Table 2.2).

Table 2.2: Overworld Themes in *Secret of Mana*

Title	**Geography**	**Characteristics**	**Implied Instrumentation**
Into the Thick of It	Wilderness	Melody over steady arpeggios	Guitar, flute, strings, synth
Distant Thunder	Fields	Syncopated and jazzy	Drums/claps, percussion, flute, brass, harmonica
Ceremony	Ruins	Creepy with unison passages	Gamelan, synths
What the Forest Taught Me	"Upperland"	Melody over ostinato	Flutes, strings, piano
Secret of the Arid Sands	Desert	Slow moving melody over steady 6/8 percussion	Flute, drums, percussion
A Wish…	Ice	Slow, empty	Synths, flutes
Flight into the Unknown	On Flammie 1	Steady pop beat, majestic	Drums, percussion, synths
The Dark Star	On Flammie 2	Slow, melody over held out chords, foreboding	Strings, percussion
Prophecy	On Flammie 3	Fast, odd meter, ostinato	Flutes, percussion
The Wind Never Ceases	Mountains	Melody over ostinato, lush chords	Piano, strings
Still of the Night	"Pureland"	Steady and empty	Synths

For example, "Into the Thick of It" is the heard while exploring the plains and wilderness, and again, uses the earthy, mid-ranged tone of an acoustic guitar. One association between guitars and the forest stem from the fact that acoustic guitars are made of wood. Guitars are also associated with folk and campfire music (thus, music of the common-folk and peasants), which one might expect to hear in this setting, as opposed to the grandiose music of the concert stage or royal palaces.

The most compelling example is "Ceremony," which doubles as both an overworld and a dungeon theme (the music continues when you bring your characters

into nearby ruins, where silent villagers are wandering around in a trance). These taciturn folk wander aimlessly, as if part of a cult, since they are brainwashed by the game's villain, Thanatos. The guitars and flutes from the previously-heard wilderness themes are replaced with what sounds like a gamelan. The unique use of the gamelan suggests the music may almost serve a diegetic role, as if it is part of their ritual in which they are participating, though we do not see any instruments on screen. This dissonant and unfamiliar music is communicating that these people, who otherwise appear to be friendly, are now under Thanatos's trance.

Interestingly, *Secret of Mana* takes liberties with the traditional musical elements of overworld themes when the characters are flying on Flammie (a friendly dragon used to fly above the overworld), rather than walking. While flying, the player is still exploring an overworld, however, there are no enemy encounters, and the change in music communicates this. The three themes that are heard while on Flammie are contingent on gaming events. "Flight into the Unknown" is the original flying theme, with a penchant for high instruments and oscillating, ceaseless accompaniment over a pop drum beat. Some of its flying themes—"The Dark Star" and "Prophecy"— have little resemblance to the function of an overworld theme, in order to allow the music to communicate important events that have occurred. These tracks are not heard until closer to the end of the game, when the sound of overworld music has been already established. Since these two themes sound nothing like overworld music but are technically playing in an overworld, it demonstrates how plot points can supercede game function in terms of musical substance.

Conclusion

Nobuo Uematsu titles his contributions to the first *Final Fantasy* games as "Main Theme," thus suggesting that overworlds are the most important music in these early RPGs. Despite gameplay differences in the examples discussed, the primary role of overworld themes is to evoke a sense of location within the game's world. Their use of unceasing simplistic rhythmic patterns provide energy to keep the player motivated to explore. Melodic gestures often evoke a sense of heroism, an attribute typically associated with the player's characters in RPGs and other fantasy media. In addition, the ambiguity in the harmonic language provides a sense that the music is wandering instead of resolving, just as your characters are searching for the next clue to finish their quest.

When the player recognizes an overworld theme after leaving another location, they are immediately reminded of the function of this gaming event in relation to the game's story. In action RPGs like *Zelda*, the return of this heroic theme means they are now searching for their next dungeon or item. In turn-based RPGs, the overworld theme is an indication to the player that they are in a temporary safe space. In fourth-generation games, changes in instrumentation match geographical or cultural aspects of the overworld and communicates the player's location in the game's environment as well as narrative.

Chapter 3: Town Themes
World-Building by Establishing Character Identity

In RPGs, "towns" refer to locations where the player is able to acquire information from NPCs (non-player characters), visit shops, and heal before venturing back out to the overworld. These locations are typically friendly, and act as a safe space for the player, providing a break from battles that may be encountered in the overworld. Towns in RPGs vary from rural to urban, and the music matches appropriately, both by ways of depicting the identity of the inhabitants and political affiliations of each municipality. Regardless of the town's status, the music that accompanies towns functions as a demarcation point, and tells the player that gameplay has changed.

Town themes possess features that are similar to a game's other themes in terms of harmonic language and—where applicable—instrumentation. However, players only spend a significant amount of time in a town during their first visit. After the information and equipment is gathered, the town just serves as a safe place to rest. Because of this, the themes tend to be shorter and have less musical growth than most other themes in a given game.

In addition to providing music that communicates a sense of safety, composers also employ musical tropes to indicate the identity of specific, significant towns, which is key in building a fictitious world. This is accomplished by using specific instruments in each town theme, as their timbres can be symbolic and representative of the identity of the town's inhabitants.

There are three specific ways that town themes contribute to the game's story: First, music reflects the town's natural environment, including geographical elements such as forests or mountains. Second, identity of the imaginary inhabitants is developed through specific changes in musical style. Third, music can communicate

the political status of towns, which may change during the course of a game.

Using Pastoral Themes to Represent a Sense of Safety

In the same way that overworld themes contribute to developing a player's sense of place throughout the game, the style of a town theme tends to be governed by its geographical features. In early games such as *Dragon Warrior* and *Final Fantasy*, all towns share the same musical theme throughout the game.[59] Both of these games feature towns that are set in a serene medieval countryside, and the music heard in these towns evokes pastoral themes. Robert Hatten suggests that, "simple harmonies, parallel thirds, and the major mode all support an interpretation of the pastoral topic."[60] In addition, Eric Saylor describes pastoral works in more detail, noting that they, "feature modal or modally inflected neo-tonal harmonies, rhapsodic thematic material, an often limited dynamic range (tending toward the quiet), prominent string and woodwind textures, and smoothly flowing rhythms, often in triple or compound meters."[61] Since towns are sometimes the only safe place in these games, these consonant musical features are appropriate. In addition, Hatten refers to the pastoral topic as the antithesis to the tragic, which matches the gaming function of town themes vs. the more dissonant battle themes.[62]

Players enter the first town in *Dragon Warrior*, "Brecconary," early in the game as it is only a few steps away from the castle where their character begins. After hearing the overworld theme (discussed in Chapter 2) during the short trip—a minor melody reminiscent of Debussy's *Passepied* from the *Suite Bergamasque*—the

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[59] This excludes the haunted town of Haukness in *Dragon Warrior*, which looks like a town but functions as a dungeon because of its random encounters, lack of shops, and use of the foreboding music found in other dungeons.

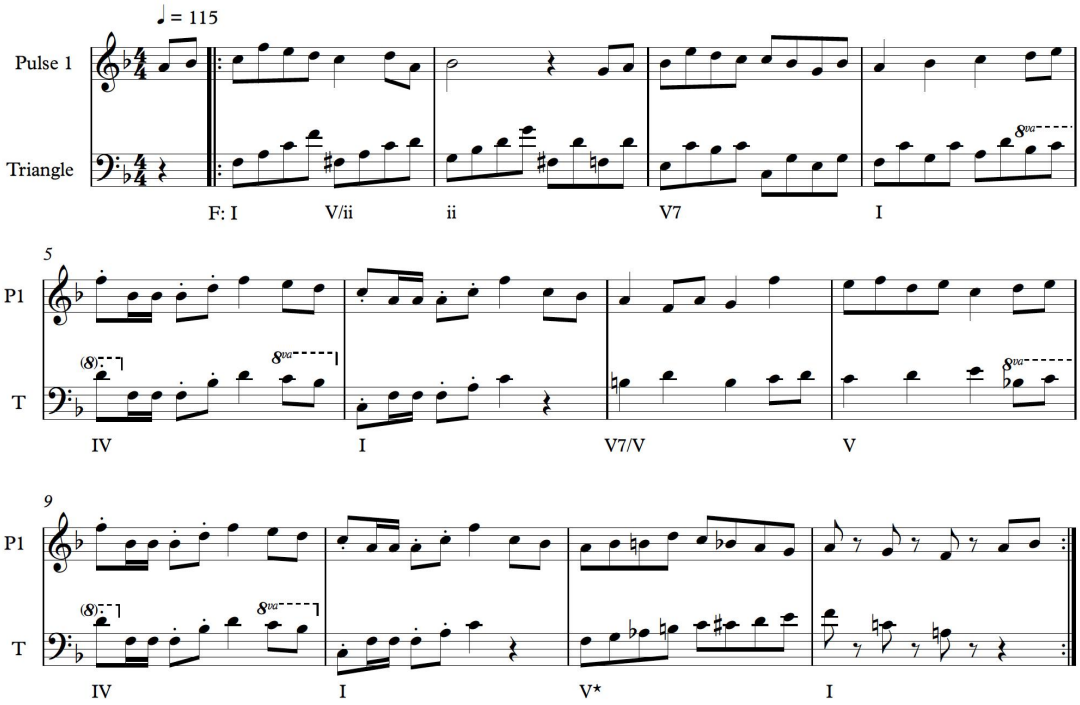
[60] Robert Hatten, *Musical Meaning in Beethoven: Markedness, Correlation, and Interpretation*, (Bloomington, IN: Indiana University Press, 1994), 18.

[61] Eric Saylor. ""It's Not Lambkins Frisking at All": English Pastoral Music and the Great War." *The Musical Quarterly* 91, no. 1/2 (2008): 46.

[62] Hatten, *Musical Meaning in Beethoven*, 18.

contrast in musical texture and mode upon entering the town is stark. Instead of a lyrical melody with harmonic accompaniment based on Alberti bass figures, the town theme is composed more like a galant-style instrumental piano piece, with two distinct lines similar to one of Bach's Inventions for keyboard. Though it does have its harmonic excursions, which are appropriate to the overall style of the game's music, the composition is relatively simple, with only few motives that mostly focus on subdominant, dominant, and tonic triads. The harmonic relationship between the two lines is also simple, including parallel thirds, which occur in the transitions between m.4-5, 5-6, 8-9, and 9-10 (Example 3.1). The simple harmonies, parallel thirds, and the major mode discussed by Hatten are evidenced in the third movement of Beethoven's Hammerklavier.[63] "Townspeople" features all three of these musical characteristics as well.

Example 3.1: *Dragon Warrio*r's Town Theme "Townspeople" by Koichi Sugiyama[64]



*Implied dominant function

[63] Hatten, *Musical Meaning in Beethoven,* 18.

[64] Names of these tracks are provided by the Video Game Music Preservation Foundation. http://www.vgmpf.com/Wiki/index.php/Dragon_Warrior_(NES).

While the overworld theme is more ambiguously in D minor, this theme is strictly in F major. Though there is subtle use of secondary functions to temporarily tonicize the predominant (m.1, beat 3) and dominant (m.7) harmonies, the piece is mostly based on the tonic, subdominant, and dominant. This clear use of functional harmony is a drastic contrast to the overworld theme, where Sugiyama uses mode mixture to add new colors to the harmonic language. Again, the use of a simple harmonic progression and a major key are two more features of pastoral music.

Historically, the key of F major has been used in pastoral works, such as Beethoven's Pastoral Symphony and Vivaldi's Autumn. According to a treatise by 19th-century scholar Christian Friedrich Daniel Schubart (1806), the key of F can be associated with "gentle and melancholic feelings," and a sense of "complaisance and repose."[65] These are traits that indirectly relate to pastoralism, in that the music in these towns tends to be gentle and at a state of repose, perhaps suggesting the role of the town in relation to the game's plot.

Since third-generation console RPGs were in their inchoate phase, the role of town music had yet to be established. During this time, Nobuo Uematsu experimented with how music works in the towns of *Final Fantasy.* Unique to this game, there is a "town overworld" theme for when your party is walking between buildings and a separate musical theme for the shops. For consistency, this discussion will focus on the main "town overworld" theme, aptly named "Town" (Example 3.2).[66]

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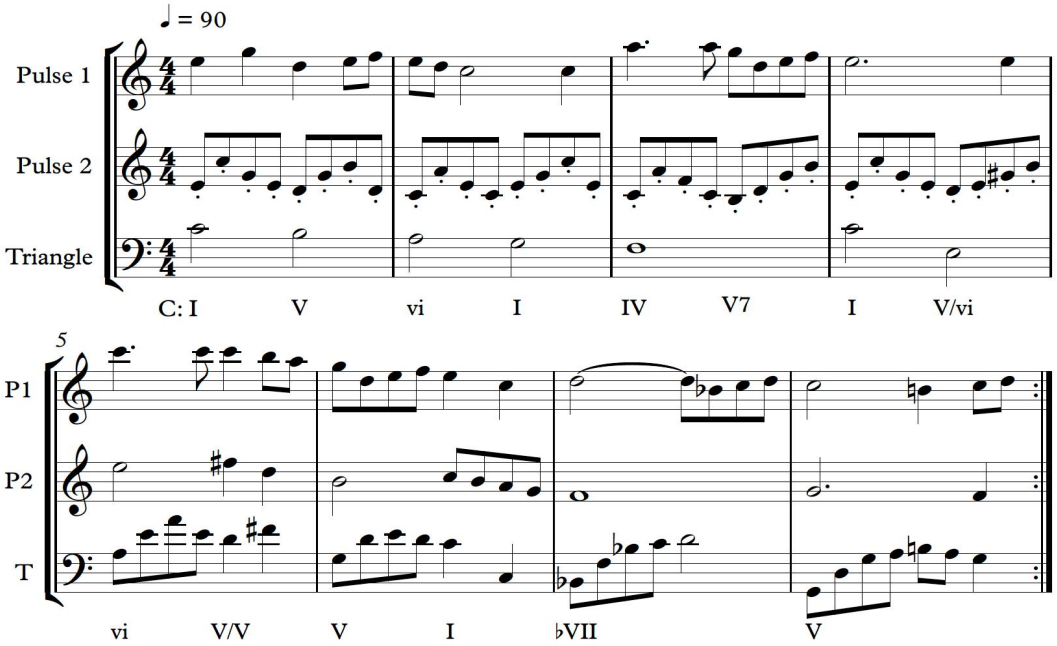
[65] Christian Friedrich Daniel Schubart, *Ideen Zu Einer Ästhetik Der Tonkunst.* Translated by Ted Alan DuBois, 433.

[66] Video Game Music Preservation Foundation. http://www.vgmpf.com/Wiki/index.php/Final_Fantasy_(NES).

Example 3.2: “Town” from *Final Fantasy,* by Nobuo Uematsu



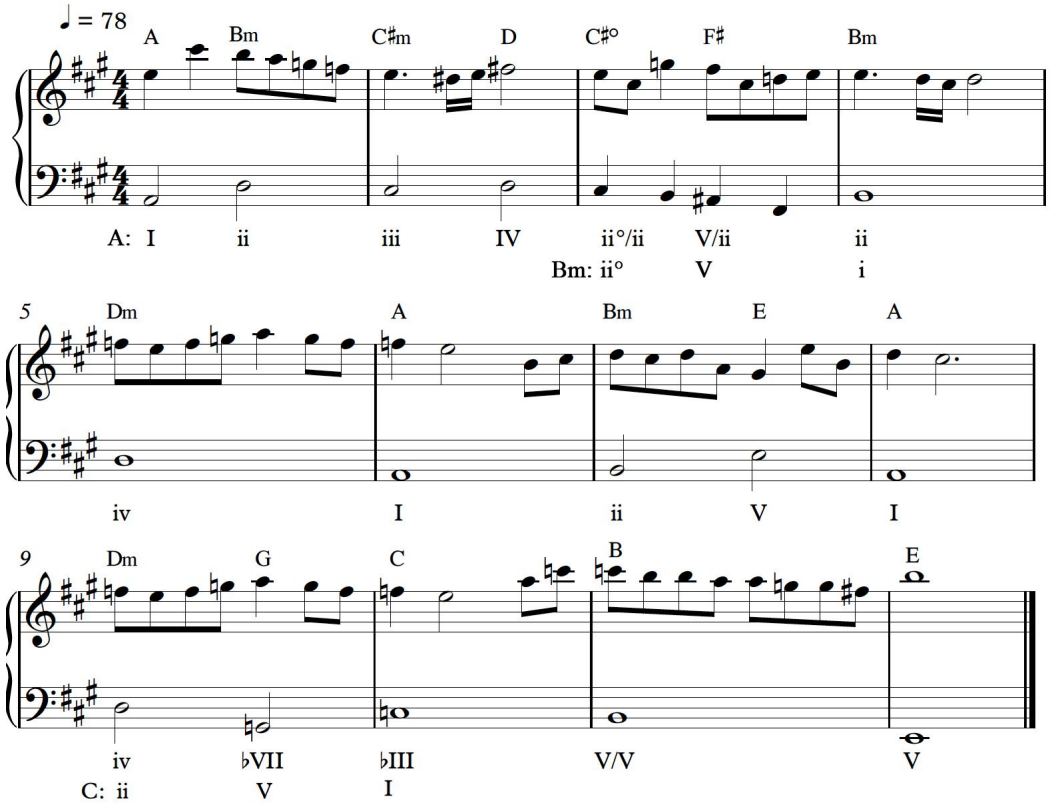
The similarities in harmonic language to *Final Fantasy*’s overworld (entitled “Main Theme”) are quickly recognizable, such as the preference for diatonic triads used in a progression that eventually venture away from the home key. Like the example from *Dragon Warrior*, it is mostly triadic and tonal, with much emphasis on tonic, subdominant, and dominant triads with a few secondary functions provided for color. However, the penultimate sonority, a B♭ major triad (♭VII) is of interest. Its companion overworld theme uses the same sonority immediately before its cadence, albeit functioning as a ♭II in that case, rather than a ♭VII.

The *Final Fantasy* town theme incorporates several features of pastoral music described earlier by Hatten and Saylor. Parallel thirds, a major key, and simple harmonies are all present. However, the borrowed chord from another key at measure 7—the IV of the subdominant (F) being substituted for the subdominant of the tonic—provides a break from tradition, and has more in common with the game’s overall soundtrack. By doing this, Uematsu adds cohesion among the themes in the same game.

Final Fantasy IV (FFIV) uses music to develop the culture of specific towns with these themes serving as recurring motives, but it also contains a generic, pastoral town theme ("Welcome to Our Town!") that does not suggest a specific identity for the inhabitants of these towns. This theme still contains some of the previously-discussed pastoral elements in order to meet the expectations of town music, but it is more harmonically progressive so it can appropriately match the game's musical style.

"Welcome to Our Town!" (Example 3.3) is heard in the first town your party visits, "Baron," and it immediately becomes the musical theme associated with towns. This theme is also associated with a "neutral"identity, as it is the protagonist's hometown and it is also used in towns that do not have a significant bearing on the plot. Since this is the sole town theme for the first few towns the player encounters, other themes in the game evoke a specific culture because of how they differ from this original, generic theme.

Example 3.3: The Generic Town Theme in *Final Fantasy IV*, "Welcome to Our Town!"[67]



Though the instrumentation consists of the traditional pastoral colors such as flutes and harmonies in thirds and sixths, its harmonic and melodic movement is more complicated than its predecessors. The chord progressions are no longer simple and traditional, and though the theme is in a major key, the melody frequently contains pitches that suggest other modes. This evident from the first measure, where the melody over the second sonority contains both a flattened $\hat{7}$ and $\hat{6}$. This "sudden chromatic slippage" is an important feature of the RPG overworld themes (and game music in general), ever since *Super Mario Bros*.[68] In addition, the use of "ii-V-I" patterns (m 3-4, 7-8, 9-10) reference jazz, especially in the way they reharmonize a

[67] Reduction by the author. The chord symbols refer to the harmony provided by the middleground instruments, not including the bass. Measure four includes a polychord; the strings hold a Bm while the harp implies a DM.

[68] Neil Lerner, "Mario's Dynamic Leaps: Musical Innovations (and the Specter of Early Cinema) in *Donkey Kong* and *Super Mario Bros.,*" in *Music in Video Games*, edited by K.J. Donnelly, William Gibbons, and Neil Lerner, (New York: Routledge, 2014), 14.

previously heard melody (m.5-6).[69] This use of musical tropes from non-Classical music gives the theme a more contemporary sound, yet the instrumentation, such as the use of acoustic guitar and flute, suggests pastoralism.

Using Town Themes to Signify Identity

To expand on the importance of town music in world-building, games for fourth-generation consoles like the SNES took advantage of additional space in the game cartridge by including multiple town themes. Just as these games use varied overworld themes to evoke a sense of geographical location, the use of multiple town themes evokes a sense of different cultures for the game's imaginary races, often feeding off of stereotypical tropes from our "real" world. According to Maria Rika Maniates, "...music must be envisaged as a symbol of its society, somehow reflecting its mores and values."[70] The music for some towns symbolizes this "society" through unique themes with a specific instrumentation, harmonies, and rhythmic figures that establish a style of music that sounds as if it belongs to these inhabitants.

Simon Frith addresses the issue of how social groups develop their own musical genre to confirm their own identity. "...[O]nce we start looking at different musical genres we can begin to document the different ways in which music works materially to give people different identities, to place them in different social groups."[71] In RPGs, most towns can be considered their own "social group," inhabited by NPCs

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[69] For example, see Kenny Dorham's "Blue Bossa," where the first four measures of the melody are harmonized differently in subsequent iterations.
[70] Maria Rika Maniates, "Musical Symbolism." *The World of Music* 20, no. 3 (1978), 46.
[71] Simon Frith, "Music and Identity," in *Questions of Cultural Identity* Edited by: Stuart Hall & Paul du Gay. (1996), 124.

who possess a one-dimensional culture, where all of its inhabitants are of the same social status.[72]

Town themes are used to develop their inhabitants' cultural identity. For example, hearing a new musical theme for a castle of Dwarves indicates to the player that there is something significant about this location in terms of the game's plot—in this case it is because the castle is inhabited by a new race. The musical theme associated with Dwarves includes a new harmonic language, rhythm, and instrumentation. Also, the use of common—albeit stereotypical—musical tropes can be used to portray a group of characters that are similar to "real" cultures. For example, the use of gongs and parallel fifths reference ideas of "East Asian" music, while music for unpitched percussion references "tribal" or "primitive" cultures.

In *FFIV*, the music is the first indicator of the significance of the town, as the player hears it immediately upon entering. Table 3.1 contains a comprehensive list of the all the towns and castles in *FFIV*, which was one of the first games to attempt to create cultural identity through the use of several different towns themes apart from the generic theme. Also included is the race of their inhabitants, listed in Table 3.1 in roughly chronological order in a standard playthrough.

Table 3.1: *Final Fantasy IV*: Town and Castle Theme Chart[73]

Town Name	**Inhabitants**	**Music**
Baron (castle)	Humans	"Kingdom of Baron"
Baron (town)	Humans	"Welcome to Our Town!"
Kaipo	Humans	"Welcome to Our Town!"
Damcyan*	Humans (in ruins)	"Castle Damcyan"

[72] Rarely are there "rich" or "poor" townspeople, but the idea of there being a "wise village elder" is a common trope and the act of speaking with him/her is sometimes accompanied by a new musical theme.

[73] These names are from the North American SNES translation, which was released as *Final Fantasy II*. All titles are from the official Final Fantasy Wiki: http://finalfantasy.wikia.com/wiki/Original_soundtracks_of_Final_Fantasy_IV

Fabul*	Humans (Monks)	“Fabul”
Mysidia*	Humans (Wizards)	“Mystic Mysidia”
Troia (castle)*	Humans (Women)	“Troian Beauty”
Mist	Humans (Summoners)	“Welcome to Our Town!”
Silvera	Toads, Pigs, and Small People (possibly affected by magic)	“Welcome to Our Town!”
Agart	Dwarves	“Welcome to Our Town!”
Dwarven Castle*	Dwarves	“Giott, King of the Dwarves”
Cave of Eblan	Humans (Ninjas)	“Into the Darkness” (a dungeon theme)
Eblan Castle	Ninjas (in ruins)	“Castle Damcyan”
Tomra	Dwarves	“Welcome to Our Town!”
Land of Monsters	Monsters	"The Land of Summons” (also used in some caves)
Hummingway Home	Hummingways	“Welcome to Our Town!”

* These are castles or towns that house a crystal (an important plot event). Though some function as full-fledged towns, others do not have shops. Regardless, they are all safe places, therefore fall under the definition of “town” in RPGs.

Though these societies are fictional, Uematsu’s music sounds like it belongs to these people, as each musical theme contains a uniquely distinguishing characteristic, be it specific instrumentation, harmonic progression, or rhythmic gesture that is not found elsewhere in the game’s soundtrack. As Maniates stated, the overall aesthetic created by each piece hints at the values of these societies. In addition, these themes provide important clues about the game’s story, just as Wagner’s leitmotifs were connected to his libretto. These themes are not unique based on the musical content itself, but how the music compares to other themes in the game. In the case of *FFIV*, these themes, which will be discussed in detail, work because of how different they are when heard in context of the generic town theme. In addition, several of these themes refer to a specific character who lives in the town.

The first occurrence of a town theme other than “Welcome to Our Town!” is

heard upon arrival at the castle of Fabul, a kingdom of Monks and the home of playable character Yang Fang Leiden.[74] The Fabul theme contains detuned pitches, parallel consonant intervals, and the use of percussion that resembles gongs. These elements evoke stereotypically traditional Asian music, based on Western ideas of the "exotic." According to Claire Mabilat, exotic musical gestures evoke a place, "that is perceived as different from home by the people making and receiving the exotic cultural product."[75]

This reference to Asian culture stands out to the player, as the majority of the game is built on tropes that reference European culture, both factual—with its use of castles that copy Medieval architecture, and mythical—with references to magic and fictitious creatures. This music is written by a Japanese composer, cognizant of the fact that this music will sound unfamiliar, even "oriental," to its eventual audience, which consists of Japanese and Western gamers who are presumably familiar with Western music and view the game through an occidental lens due to the history of games being aesthetically "Western."[76] The idea of incorporating non-European influences, instrumentation, and musical gestures into Western art music is not new. Debussy famously was inspired by Indonesian gamelan music, which helped, "to broaden [his] artistic [palette] and to explore new artistic mediums, images, and styles."[77]

A comparison to the previously heard castle theme, "Kingdom of Baron," shows how Uematsu uses unconventional motives to musically depict castles, especially ones modeled after the European style. Both this piece and Fabul's theme are

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[74] Final Fantasy Wiki. http://finalfantasy.wikia.com/wiki/Yang_Fang_Leiden
[75] Claire Mabilat, *Orientalism and Representations of Music in the Nineteenth-Century British Popular Arts,* (London: Routledge, 2016), 6.
[76] For example, one of the first iconic characters is Mario (first appearing in *Donkey Kong* in 1981 as "Jumpman"), whose likeness imitates a stereotypical Italian-American plumber.
[77] Mabilat, *Orientalism,* 7.

curiously in minor keys. This mode is less commonly associated with royalty due to the prevalence of major fanfare themes. Instead of incorporating the obvious grandiose music usually associated with castles, Uematsu uses identity tropes as the main compositional focus for the unique themes for Baron and Fabul. The importance of forming an identity of the citizens overshadows the fact that the player is in a castle. The music assigned to these castles avoids the expected fanfare and instead features sounds and musical gestures associated with their respective identities.

There are several towns in Table 3.1 that are worth discussing because they are significant to the game's plot rather than just a place used to heal and purchase equipment. Each of these special towns has its own musical theme that also matches a new town design. Along with these graphical changes, the unique musical style and instrumentation of each of these themes is different from the generic town theme.

"Mystic Mysidia" accompanies a town of magic users. It is first encountered after a dramatic cutscene where a sea monster, Leviathan, attacks the characters' ship. The player suddenly only controls Cecil, the protagonist, and all other characters are nowhere to be seen. The disoriented and confused player's natural reaction is to walk a few steps into the nearby town icon, knowing it is a symbol for a safe place to gather information and supplies. However, the town's music is jarringly different than previous town music, as is the appearance of the inhabitants.

The flowing melodies and familiar triadic harmonic language of the game is replaced with a harmonically-stagnant ostinato led by minimalistic mallet percussion. The use of a cuíca—a Brazilian instrument that is unfamiliar sound to the game's tonal palette—only adds to its quirkiness. After attempting to converse with some residents, the player quickly learns that everyone in the town hates your likeness; some characters would rather magically turn you into a frog rather than talk.

Uematsu's decision to assign a new musical theme that contains no similarities to "Welcome to Our Town!" helps develop the identities of these mages (humans with magical capabilities), and indicates to the player how different this town is when compared to previously encountered ones.

Another example, "Troian Beauty," is assigned to the matriarchal castle of Troia, and matches the aesthetics of the naturalistic beauty of a kingdom surrounded by trees, mountains, rivers, and lakes. The harmonic stasis in the opening measures—a simple ostinato on a G major pentatonic scale—provides a contrast to the harmonically progressive generic theme. In addition, it is in triple meter and features a harp. Though it does contain several borrowed chords that fit the game's harmonic language, the change in meter with a slower harmonic rhythm sets it apart. These musical differences help evoke another culture, and the peaceful and consonant music is well suited to the game's depiction of the inhabitants and their town.

Another example, "Giott, King of Dwarves," represents the underground Dwarven kingdom. A large castle with shops, it is home to members of a Dwarven race. The melody is played on what sounds like a brass instrument, either a mid-range trombone or a tuba in its high register. Like the Fabul theme, a depiction of an "other" abounds, but this time the music does not only attempt to reference a specific culture, but also a mythical race. The way Uematsu portrays this is through musical elements that do not follow Western musical tradition. Its opening fanfare consists of a series of half-note parallel fifths on trumpet-like instruments. Frequently leaning on to the leading tone, the melody does not abide by a key signature, but rather uses the immediate underlying harmony to govern its pitch choices: the chord progression wanders between major seventh chords that do not serve a harmonic function and are best analyzed with Neo-Riemannian operations rather than traditional Roman

numerals—A major to C major to E major.[78] The chromatic-mediant relationships between the quickly-shifting tonal centers evokes a sense of otherness.

Another example, "The Land of Summons," provides the soundtrack for when your party is in the town inhabited by friendly monsters. It is unconventional when compared to other town themes, as it provides an eerie atmosphere through its ostinato patterns that outline minor-major seventh arpeggios. This use of dissonance and lack of harmonic movement provides a stark musical contrast to the precedent that was set in "Welcome to Our Town!" Interestingly, this same music is also assigned to two dungeons in the game, perhaps because of the fact that its musical elements do not match typical town tropes and can be successfully used in other areas. The use of flute and harp typically symbolize heavenly themes, but these instruments are instead juxtaposed against unstable sonorities. This awkward blending creates a new musical atmosphere that is more suited for monster inhabitants (unstable sonorities) in a friendly town (recognizable instruments).

Town themes can communicate that something is amiss in a particular town. *FFIV* uses a specific theme for castles that are significant to the plot, but are abandoned. Two castles—Damcyan and Eblan—share a theme that is vastly different when compared to "Welcome to Our Town!," but this theme has nothing to do with developing the identity of its inhabitants. Its melancholic musical material features slow-moving minor chords with a harmonic minor melody, which is the first hint that these castles are not like the others. Though these castles are free from random battles, they are in ruins and they do not serve "town" functions since there are no shops, an inn, or NPCs that bear any significance to the game.

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[78] The A major moves to C major through a Relative followed by a Parallel operation (RP), which in turn moves to the E major by a Leading-Tone Exchange followed by a Parallel operation (LP).

As mentioned earlier, the use of the generic town theme for other towns like Silvera, Tomra, and Hummingway Home indicates to the player that these are not important to the game's plot. With the exception of Agart (where the player enters for a brief moment to drop a key into a well), all of the unique themes were assigned to towns that contain an important plot point. These other towns are included for additional items or side quests that are not necessary for completion of the game.

Using Town Themes to Represent Political Affiliation

As console RPGs evolved, more complex plot lines started to develop. For example, the relationship between races and political factions became a more prevalent storyline. The concept of good vs. evil was expanded beyond its tried-and-true "slay the dragon and rescue the princess" archetype, shifting to a focus on warring political factions where it is not immediately clear who is truly good or evil throughout the game. This caused plots to become more sophisticated, with more wholly-developed NPCs and interesting story lines. For example, in *Final Fantasy VI (FFVI)*, the character General Leo works for the (evil) empire. Unlike his impulse counterpart, Kefka, Leo espouses a rational way of negotiation, and even befriends your characters. Towns are also more developed; according to Peter Smucker, the clash between wealthy and poor is conspicuous in the two neighboring towns of Zozo—an impoverished town curiously inhabited by liars, and Jidoor—an affluent town whose citizens collect art and attend the local opera.[79]

The application of music in *FFVI* is comparable to that of a Wagnerian opera, as its plot and character development is bolstered by a clever use of leitmotifs.[80] Like

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[79] Smucker, Peter. "Social Class Representation and Ludic Agency in Video Game Music." Paper presented at the North American Conference on Video Game Music, University of Hartford, Hartford, CT, March 31, 2019.
[80] Cheng, *Sound Play*, 63.

other RPGs, there is a generic town theme; however, similar to *FFIV*, there are also a number of unique themes that indicate the importance of the town to the game's narrative. In *FFVI* the change in music represents the political status of the towns, specifically, if they are affiliated with your allies or enemies, or remain neutral. As events unfold, the music changes accordingly.

The three themes that best reflect political affiliation in *FFVI* are "Kids Run Through the City," which is the generic theme, "Under Martial Law," which is played in towns that are occupied by the Empire, and "The Mines of Narshe," which represents a neutral town (Table 3.2). These three themes are composed in such different musical styles that there are few features that tie them together as "town" themes.

Table 3.2: *Final Fantasy VI*: Town theme music chart[81]

Town Name	**Political Affiliation**	**Music**
Narshe	Independent	"The Mines of Narshe" (World of Balance) "Dark World" (World of Ruin, as a dungeon)
Figaro Castle	Returners	"Edgar & Sabin"
South Figaro	Figaro	"Kids Run Through the City" (both worlds)
	Gestahlian Empire	"Under Martial Law"
Returner Hideout	Returners	"The Returners"
Mobliz	Independent	"Kids Run Through the City" (World of Balance) "The Day After" (World of Ruin)
Nikeah	Figaro	"Kids Run Through the City" (World of Balance) "Under Martial Law" (World of Ruin)
Kohlingen	Figaro	"Kids Run Through the City" (World of Balance) "The Day After" (World of Ruin) "Kids Run Through the City" (World of Ruin, after finding Locke)
Jidoor	Independent	"Kids Run Through the City" (World of Balance) "The Magic House" (World of Ruin)
Zozo*	Independent	"Slam Shuffle"

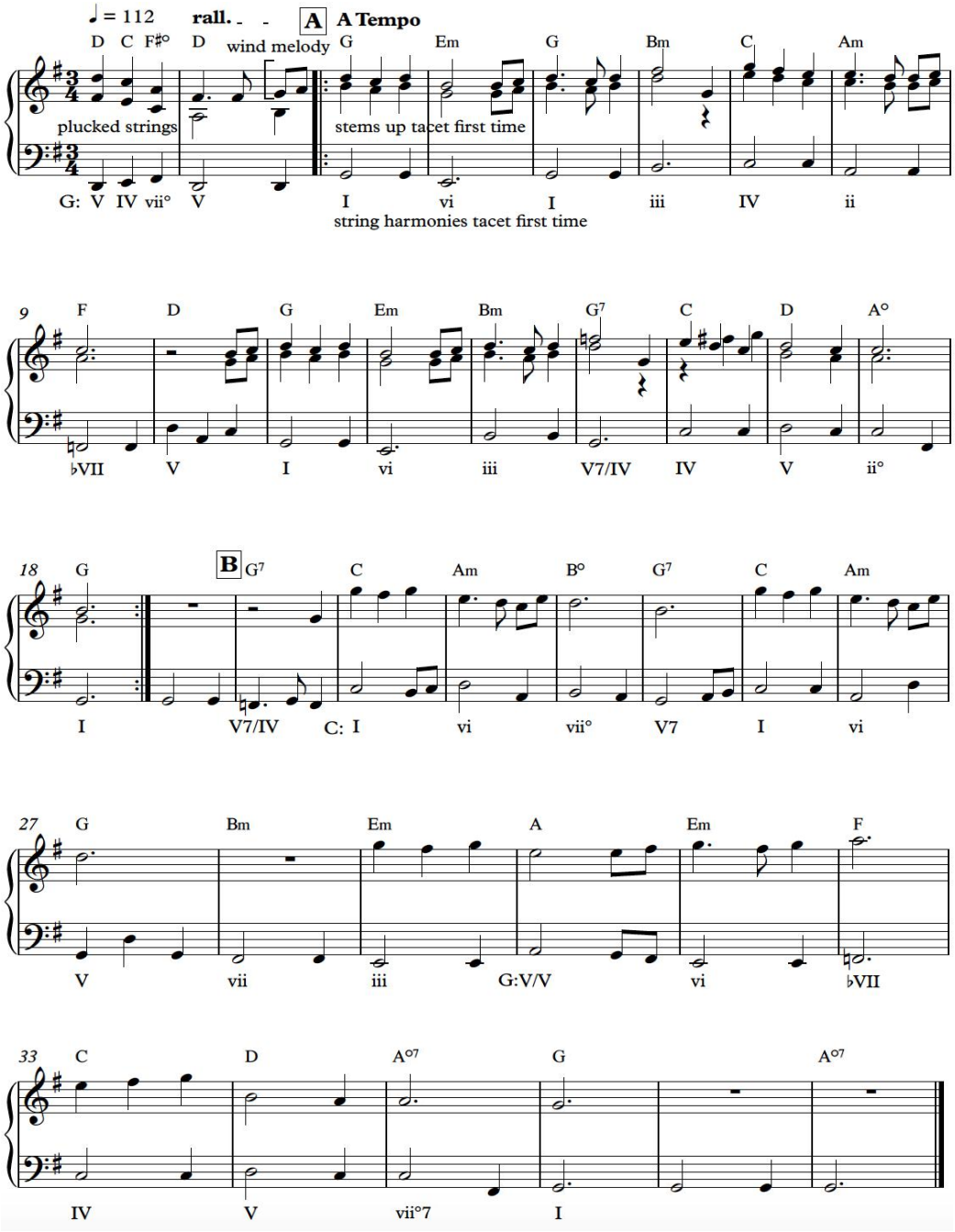
[81] The names provided are from the North American SNES translation, released as *Final Fantasy III*.

Maranda, Tzen, and Albrook	Gestahlian Empire	“Under Martial Law” (World of Balance) “The Day After” (World of Ruin)
Vector	Gestahlian Empire	"The Gestahl Empire"
Thamasa	Independent	“Strago’s Theme”

*Though it appears to be a town, Zozo is technically a dungeon in terms of gameplay since it contains random encounters. But, the music functions as a way to develop the culture of the people of this town, whose are defined by a haggard appearance and penchant for lying.

After the apocalyptic scenario roughly halfway through the game—when the “World of Balance” becomes the “World of Ruin”—the planet’s terrain is reconfigured. Towns are no longer in their same geographic location and the landscape is significantly changed, thus adding another variable in deciding which music accompanies specific towns. The generic theme from the World of Balance, “Kids Run Through the City,” (Example 3.4) is only used in South Figaro, a town that is much further along in its restoration efforts, and the music communicates this to the player. This major, consonant theme supports this luck that has been bestowed unto its inhabitants, who are reconstructing their town.

Example 3.4: The town theme in *Final Fantasy VI*, "Kids Run Through the City"[82]



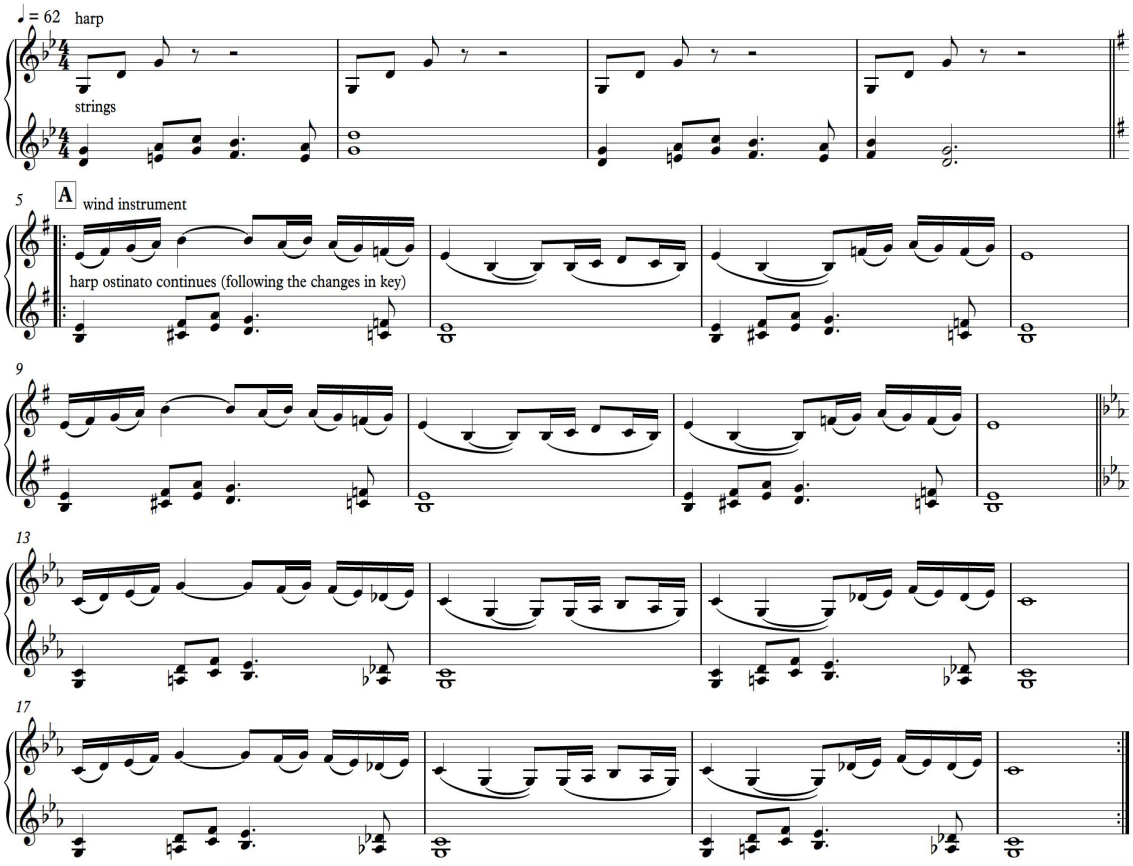
"Kids Run Through the City," the generic town theme, follows the approach to town themes found in earlier games. It contains all the pastoral elements of simplistic harmony (aside from a few borrowed chords that are now expected in video game music), parallel thirds, and folk instruments like guitar and a recorder-like instrument.

[82] The chord symbols refer to the harmony provided by the middleground instruments, not accounting for inversion.

The use of a pad of strings, which occurs in subsequent iterations of the A section, are out of place in the pastoral context, but help develop this theme and are simply a means to add variation.

To contrast this generic theme, "Under Martial Law" (Example 3.5) first occurs when the player finds themselves in a previously friendly town, South Figaro. It is now occupied by the Empire and the music is one of the first indications that something has changed.[83] After a significant gaming event, your objectives and current scenario are displayed on screen with this theme playing. When the player gains control of their character, Locke, it is suddenly apparent that you have made it back to South Figaro alone, but soldiers have since occupied the city.

Example 3.5: The opposing town theme in *Final Fantasy VI*, "Under Martial Law"



[83] To bolster the importance of this occupation by the enemy, this theme carries over into overworld exploration for a short time as well.

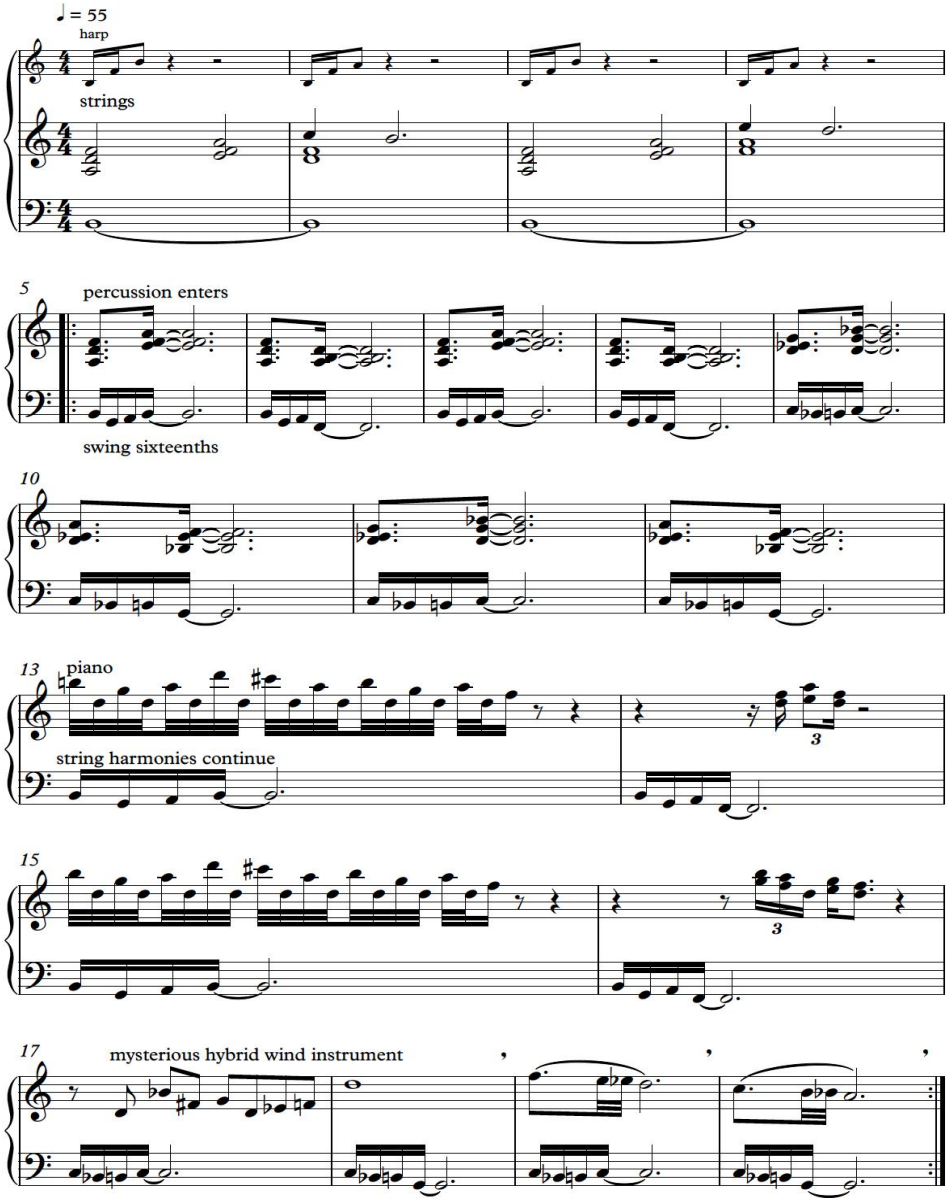
The theme is written in a contrasting style to "Kids Run Through the City." Its use of a repetitive, root-based, bass line in a minor mode renders it not easily recognizable as a theme associated with towns in games. The pastoral elements of the original town theme are mostly gone, with only remnants of similar instrumentation remaining. Instead of peaceful and bucolic, this theme is now militant and industrial. The neutral, hollow sounds of the wind instruments playing in thirds are replaced by a solo instrument whose synthetic timbre is hard to pinpoint, though still wind-like. Lying in a midrange tessitura, it is not reedy enough to be a cor anglais, or brassy enough to be a horn. This ambiguity conjures the idea that the mysterious hybrid wind instrument assigned to this melody is not a member of Earth's instrumentarium, but unique to this unknown world.

The use of other new instruments that are not found in classical music provide additional contrast. The flowing triple-meter pulse is replaced with a simple, percussive ostinato consisting of hi-hats, kick drum, and electric bass that does not leave the root notes. Strings provide a harmonically stagnant line, which is composed of meandering parallel fourths.

Other towns are politically neutral. In the World of Balance, the town of Narshe has its own theme, "The Mines of Narshe," that matches the aesthetics of the bleak mining village. Instead of falling on the peaceful vs. militant spectrum, this piece of music provides a sense of desolation through its spare texture and harmonic tension that never resolves. The long periods of very little rhythmic activity are generated through a slow tempo (55bpm), providing a sense of openness due to the beats being far from each other. There is also a long, extended period of unstable harmony and melody, producing a sense of unease. The introduction of the piece suggests Locrian mode with its ostinato based on inversions of half-diminished-seventh and other

dissonant chords that never resolve. This sense of instability is never broken, as when the chords finally change, the amount of dissonance does not. These features act as a world-builder as this theme is also used as your party has to wander the eponymous mines and encounter enemies. Thus, it functions not only as town music, but also "dungeon" music. Its connotations with the dungeon-crawling aspect of the game draws contrast with the safety that most town themes provide, creating a town theme that does not function as expected.

Example 3.6: "The Mines of Narshe," a Town Theme with "Dungeon" Elements



Using town themes to develop a culture or to communicate status are not mutually exclusive, nor do these tropes exist in just one game series. Some games, such as *Secret of Mana* (composed by Hiroki Kikuta, released in 1993), use additional town themes for several reasons: establishing identity, communicating the political status of a town, and also applying an alternate town theme that changes after a specific gaming event occurs. For instance, early in the game, your playable character is banned from his hometown after removing a sword from a stone, which causes monsters to appear. The previously-heard bright and energetic town music is replaced with a melancholic minor melody, thus letting the player know this is no longer a safe space in the game. This town theme instead functions as an event theme, as the music is communicating plot rather than depicting space.

Just as the *Final Fantasy* games use music to develop culture of fictitious beings, *Secret of Mana* includes towns of Dwarves and anthropomorphic mushrooms. Each of these has their own theme that sounds nothing like the generic town theme, by ways of using new instrumentation, rhythm, and mode. Political affiliations are used in this game as well, such as how the “Empire” consists of a few towns that all share the same music.

Conclusion

The notion of a town theme being pastoral, peaceful, and predictable originated in early NES games and has continued for generic town themes in the subsequent generation. However, due to the technological advancements that allowed for more complex games, composers like Nobuo Uematsu and Hiroki Kikuta eventually used multiple town themes to help provide a sense of identity and tell the story of the game by indicating the political alignment and status of certain towns. Current RPGs have

adopted this model and use town themes to provide information to the player about the importance of the town in terms of world-building, plot communication, and game function.

Each theme features a different musical texture so the player can instantly recognize the significance and uniqueness of inhabitants of the town. The pleasant, major, consonant themes are an indication that you are in a safe area, while the more droning and unstable pieces suggest that something is amiss. However, these themes are tied together in how they are different enough from the overworld, battle, and dungeon themes, which make up the game's musical oeuvre.

Chapter 4: Battle Themes
Using Harmonic and Rhythmic Dissonance to Produce a Sense of Intensity

The RPG battle sequence provides an additional type of gameplay where the player must defeat enemies in order to gain experience, earn currency, and continue their quest. In turn-based RPGs, battles take place in a separate cutscene that occurs at random while the player's characters are traveling through the overworld.[84] This battle scene usually begins with a quick screen transition accompanied by a sound effect.[85] The gameplay changes drastically in this cutscene, as the player no longer moves their characters during battles. Instead, they input commands for their character(s)—whether to fight, cast a spell, run away, etc. This type of gameplay requires a different set of skills and strategy.

The use of a battle theme is found only in turn-based RPGs (as opposed to action RPGs, where random encounters do not occur). Since the gameplay in these battle scenes is a departure from other gaming events, the musical style changes appropriately. As discussed in Chapter 2, the overworld theme serves as a world builder, supporting the geography of the world map. Battle themes, on the other hand, serve a pace-setting function.[86] These themes both create a sense of tension and generate the excitement necessary to motivate the player to perform precise button pushes with a gamepad.

Effective battle themes are defined by certain rhythmic, harmonic, and melodic tropes, and where applicable, feature a change in instrumentation from the rest of the game. When compared to other musical themes, battle music is less stable, mostly due to a higher level of harmonic dissonance. Minor keys featuring chromaticism,

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[84] For simplicity's sake, any non-battle event will be referred to as an "overworld." Most dungeons in RPGs contain battles, as do some towns.

[85] For more on the way new music is perceived in regards to this abrupt transition between gaming events, see Julianne Grasso, "Music in the Time of Video Games: Spelunking *Final Fantasy IV*" *Music in the Role-Playing Game: Heroes & Harmonies,* (2020): 97-116.

[86] Phillips, *A Composer's Guide to Game Music*, 105-108.

non-diatonic scales, and dissonant chords are common, and are mostly employed for coloristic, rather than functional, purposes. Syncopated rhythmic figures accompany this dissonant harmonic language and heighten the level of intensity, communicating to the player the significance of the battle.

This intense music is necessary to compensate for the fact that there is less movement on screen during these battle events. Without the accompanying score, the battle scene can be perceived as a lull in gameplay, as the action has subsided since the player can no longer move their characters. Instead, the player must wait their turn to input commands. According to Winifred Phillips, pace-setting music "can remedy this problem by infusing the game with an overall momentum."[87]

Changes in musical texture represent another point of contrast between battle themes and other themes in RPGs. As consoles evolved, battle music began to incorporate styles and trends from popular music, specifically through the use of newly-available synthesized guitars and drums. References to rock and pop music in a game where the rest of the soundtrack is composed in a classical idiom further separates battle themes from the rest of the game's soundtrack.

Using multiple battle themes is an effective way to communicate to the player the significance of the battle. A generic theme is usually assigned to all "minor" battles, but "boss" battles and the final battle usually have their own theme. As soon as the player hears this new music, they recognize how this battle is important.

Early Battle Themes: Creating Tension through Instability

Dragon Warrior represents one of the earliest RPGs to employ a turn-based battle system. Its generic battle theme, "Fight,"[88] (Example 4.1) is heavily chromatic and made up of awkward rhythms and dissonant arpeggios, representing a complex

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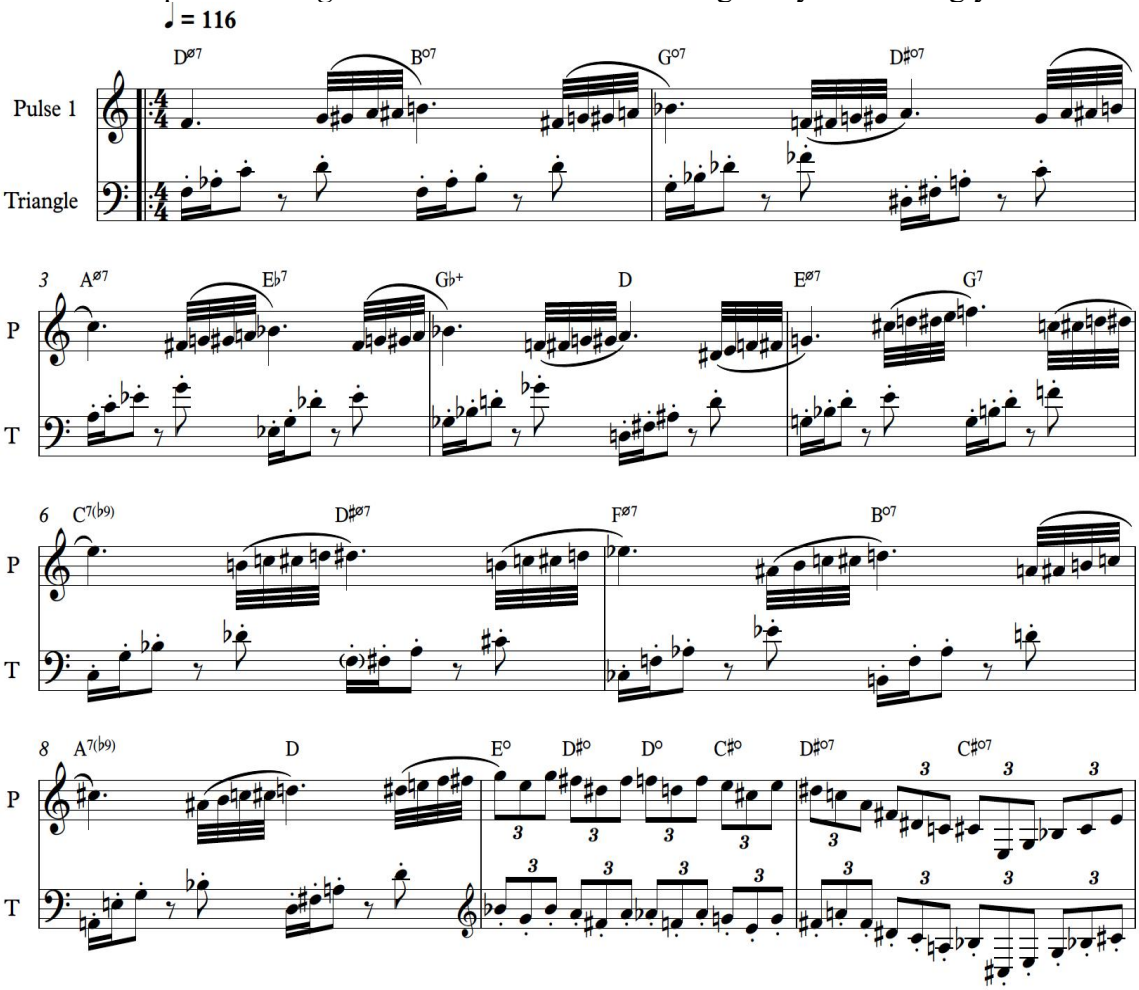
[87] Phillips, *A Composer's Guide to Game Music*, 106.

[88] All titles come from the game's respective page on the Video Game Music Preservation Foundation website: http://www.vgmpf.com/Wiki/index.php.

texture despite only using two voices of the NES's sound engine. These musical traits produce a tense experience as the gameplay shifts from the temporarily safe overworld to a battle event. This theme prevails as the sole battle music throughout the game, with the exception of the final boss encounter. Since *Dragon Warrior* is a third-generation game, instrumentation is limited to the simple waveforms that the console can produce. While later games were able to use samples that model acoustic instruments, *Dragon Warrior*'s battle theme establishes a unique musical texture despite these timbral limitations.

Example 4.1: *Dragon Warrior*'s battle theme "Fight" by Koichi Sugiyama



One of the distinguishing characteristics of "Fight" is the abundance of unstable harmonic language during a very short theme, which creates a sense of tension that is unprecedented in the game. These battles are entered while traveling

around the overworld, whose theme is melodic and song-like (as discussed in Chapter 2). Though the battle theme's harmonies are built on familiar tertian intervals, they are completely non-functional; the piece consists of mostly diminished seventh chords and is devoid of any clear dominant-tonic relationships. Though there are two occurrences of D major triads conveniently placed at the end of each four-bar phrase as if there were a key center, the intense chromaticism and lack of any harmonic trajectory obscures any harmonic meaning. Rather than resolving, these arpeggios are used to create a musical style based on sonority rather than function.

The use of the diminished seventh chord to evoke a sense of danger has its origins in Classical music, especially art song and Wagnerian opera. According to Robert Donington, the use of the diminished seventh chord in Wagner's operas is "unsettling" in the sense that the listener can "hear the evil unmistakably."[89] For example, in *Das Rheingold*, the gold is originally represented by a simple major arpeggio. But, after it is stolen, it is "chromatically distorted into a diminished seventh as if to stress the violence now being done to it."[90]

According to a study by Daniel and Bernd Willimek on the relationship between musical tropes and emotions, "a diminished seventh chord is considered to have several elements [that] strive for resolution," specifically because it is a collection of two tritones that can resolve in numerous ways, thus potentially blurring a true harmonic center.[91] The study cites specific examples mostly from the Romantic era, including Franz Schubert's *Die Krähe* (*The Crow*) from the cycle, *Winterreise.* This passage illustrates, "the diminished seventh chord can communicate a sense of

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[89] Donington, *Wagner's 'Ring' and its Symbols*, 50.
[90] Donington, 84.
[91] Daniela and Bernd Willimek, *Music and Emotions: Research on the Theory of Musical Equilibration (die Strebetendez-Theorie)*. Case study, 2011, 20.

complete despair."[92] Set at the culmination of the lyric, "Treue bis zum Grabe!" ("Faithful to the grave!"), this chord provides text painting as it accompanies the resolution to a minor chord (from Edim7 to Fm). This resolution to a minor chord is welcomed, as the diminished seventh chord in question creates tension that needs to be resolved.

In addition to these sonorities, certain melodic gestures represent pertinent battle events. The melodic pitches on beats one and three of the first eight measures of "Fight" are approached by a quick chromatic run, representing an 8-bit attempt at a portamento. The intervallic relationships between these accented beats is as unpredictable and dissonant as the underlying implied chord progression. Ignoring the portamento, there is a melodic shape consisting of descending minor seconds (m.1, beat 3 to m.2, beat 3; m.5, beat 3 to m.6 beat 3; m.7 beat 1 to m.8 beat 1). These obscure any semblance of tonality, causing a stark contrast to the singable conjunct melody of the overworld theme. This lack of a clear melodic shape and pattern adds to the chaos and sense of unease produced by the dissonant harmony.

Since *Dragon Warrior* was an early game, composers were still experimenting with what could be done to evoke danger through certain musical ideas. *Final Fantasy*, released in Japan a year after *Dragon Warrior*, features similar turn-based gameplay; however, the game is much larger and takes longer to complete. Similarly to *Dragon Warrior*, there is only one battle theme, which is possibly the most-heard piece in the soundtrack, as it accompanies every battle that the player encounters throughout their quest.

Final Fantasy's battle theme, titled "Battle Scene," references rock music through a driving beat and use of harmony found in most popular music. The first

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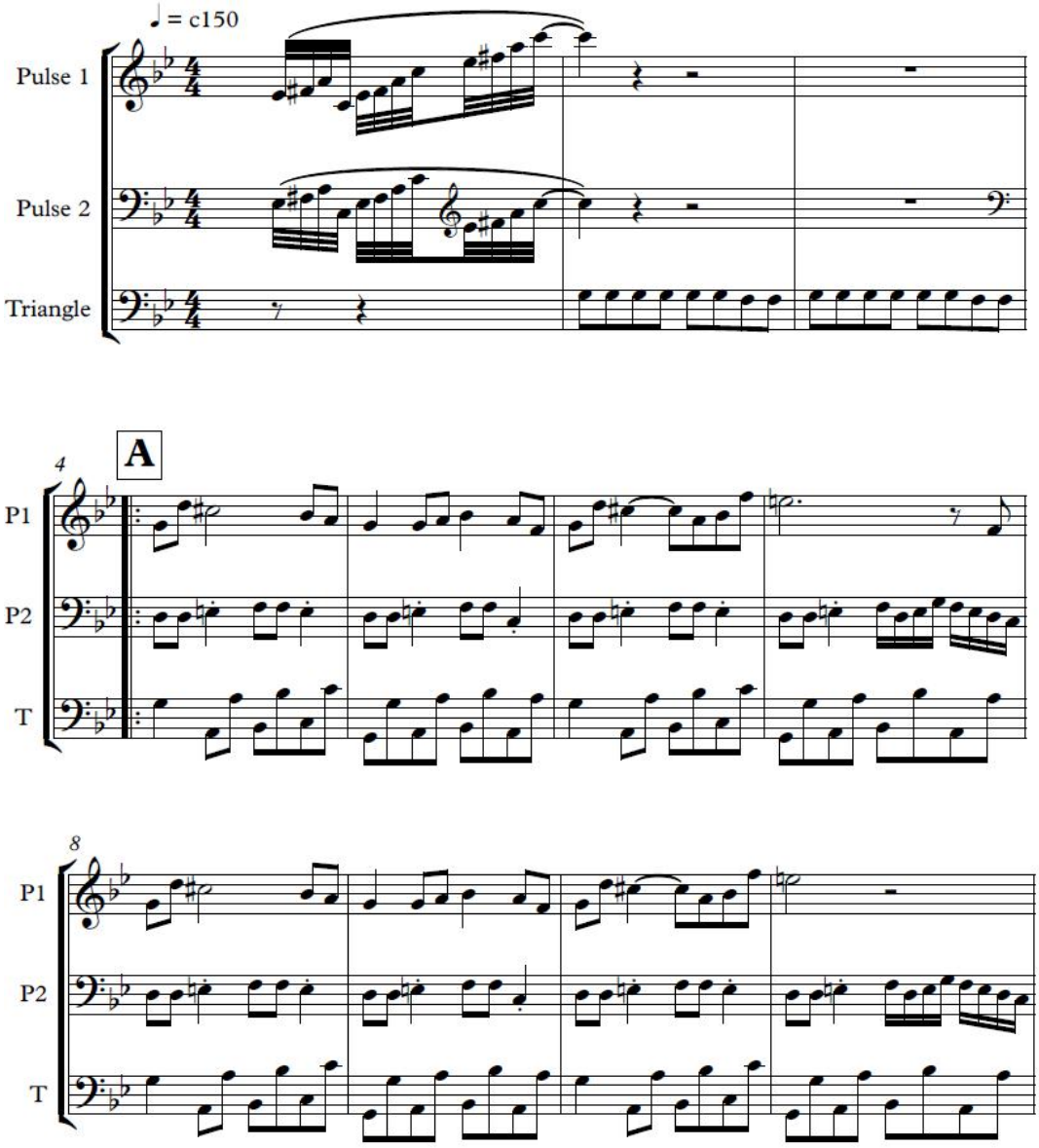
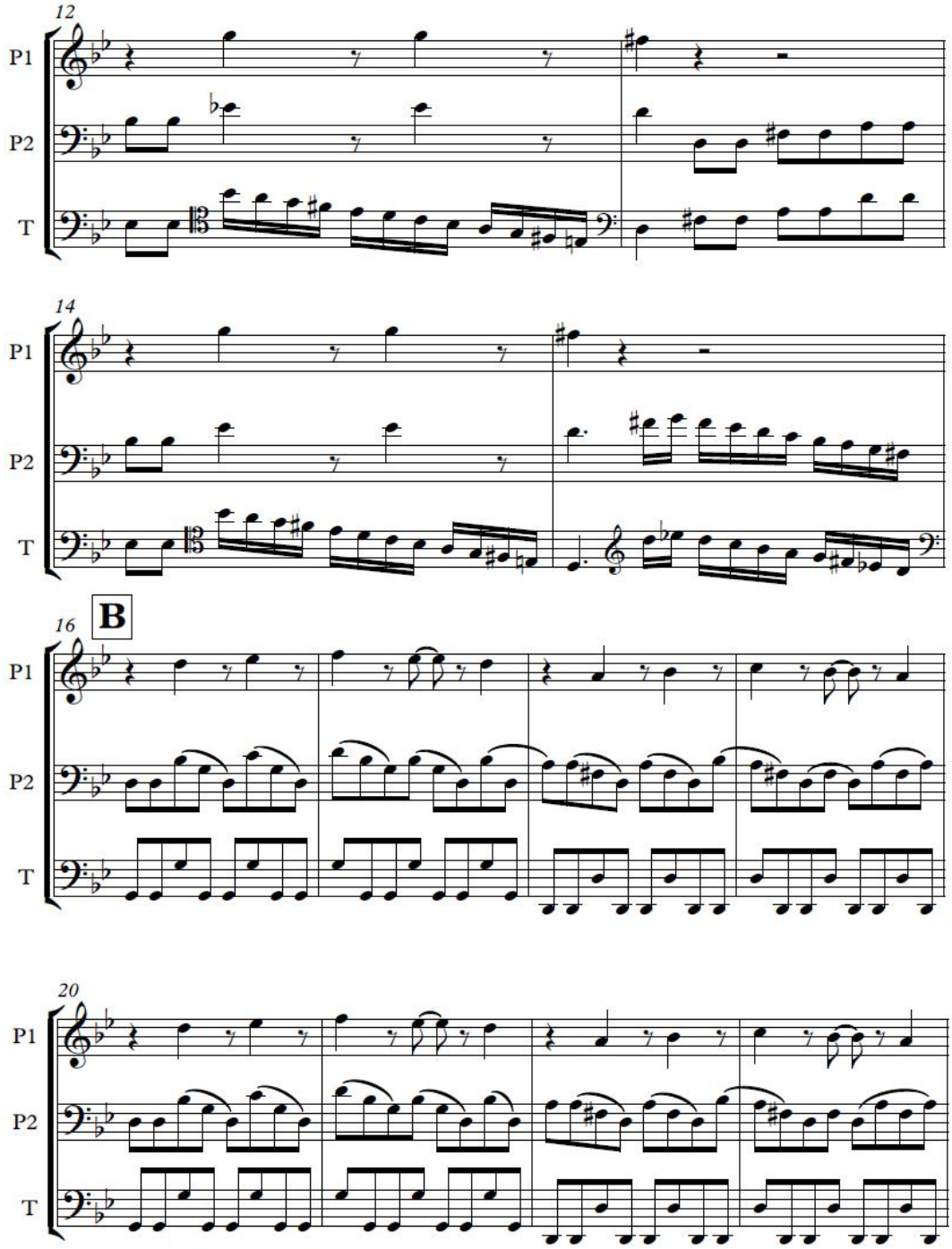
[92] Willimek, *Music and Emotions: Research on the Theory of Musical Equilibration (die Strebetendez-Theorie*

pulse wave provides the melody with guitar-like vibrato, the triangle channel suggests a bass line made up of alternating octaves, and second pulse channel adds a simplistic "power chord" harmony to this bass line. Though the first two channels are both pulse waves, the timbre of the second pulse channel adjusts slightly during the B section of the piece. Because the timbral palette is so limited on the NES, Uematsu experimented with trying to create new instruments out of just a few waveforms. This attempt at creating a synthetic rock band is one of the elements that distinguishes *Final Fantasy'*s battle music from that of *Dragon Warrior*, but the treatment of dissonance and rhythm are different, as well.

Unlike the use of diminished seventh chords in *Dragon Warrior*'s "Fight," *Final Fantasy*'s "Battle Scene" evokes a sense of instability through the use of several chromatic alterations and mode mixture. This harmonic ambiguity is further enhanced by the avoidance of expected cadences. Though the piece has a tonal center in G minor, the harmonic motion does not always conform to traditional tonic/dominant patterns. For example, the A section (Example 4.2) takes a more modal approach where the leading tone is replaced with the subtonic. However, the use of the raised sixth is likely just the result of a "power chord," which is drawn from Uematsu's passion for rock music. These third-less diads between the bass and accompaniment suggest guitar voicings, whose use of a perfect fifth on the super tonic avoids the traditional diminished interval and thus the Aeolian minor mode. In addition, the quick harmonic minor runs in the transition to the B section are reminiscent of the guitar work of Yngwie Malmsteen and other "neo-classical" metal artists that were popular in the mid 1980s, the same time these games were developed.

Example 4.2 “Battle Scene” from *Final Fantasy,* by Nobuo Uematsu




12
P1
P2
T
14
P1
P2
T
16
B
P1
P2
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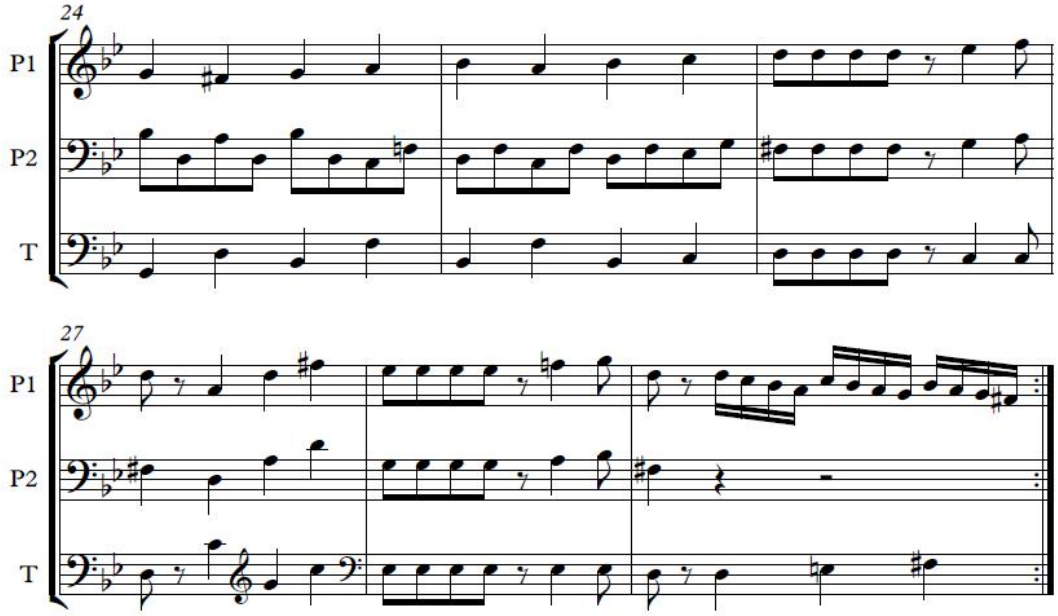
P1
P2
T



"Battle Scene's" melody is built on the G minor scale, but includes some altered chromatic pitches that imply a diminished (whole-half) scale. This avoidance of both strong cadences and reliance on a clear tonic creates a kind of dissonance used in battle music. The use of diminished chords frustrates any anticipated resolutions, akin to the use of these chords in *Dragon Warrior*'s battle theme.

The A theme is bookended by leaps of a fifth that then descend a semitone (measures 4 and 6-7), ending on the out-of-key pitches, C♯ and E. Since these two pitches possess the two longest rhythmic durations in the piece, the dissonances are emphasized, further blurring the piece's tonality.

Aggressive Rhythmic Activity

In addition to harmonic dissonance, syncopated rhythmic figures are important in building tension. The rhythm of battle music is generally faster and more active than other pieces on a game's soundtrack. The overworld and town themes tend to be at moderate tempi with steady motion. However, the battle themes constantly push forward with an abundance of syncopation and aggressively relentless rhythmic

activity. This is important because the increased rhythmic activity coincides with the sudden gameplay change that occurs when a battle begins.

Drawing upon research by Heinrich Schenker and Maury Yeston, Justin London concludes that meter is defined by the interaction of two parts, as a compound synergy between multiple musical lines, or "strata."[93] Rhythm comes from counterpoint and how multiple lines work together. Thus, many of these aggressive rhythms are generated through multiple musical lines that are made up of completely different rhythmic gestures. When analyzing these battle themes, it is important to look for how rhythmically varied each musical line is, and how each line is—according to Justin London—an "interpretation" of the other simultaneous material.[94]

Despite the disorderly melodic and harmonic activity in *Dragon Warrior*'s "Fight" theme, the two voices are each based on a distinct two-beat repeating rhythmic cell, providing a consistent pattern until the short coda, which is built on a one-beat idea (Example 4.3). This creates a new composite rhythm that is more complicated. The interaction of these two strikingly different rhythmic patterns forms a clear meter. Both channels work together, with the higher being built on quick legato ascents to sustaining pitches while the lower is staccato, syncopated, and built on disjunct intervals.

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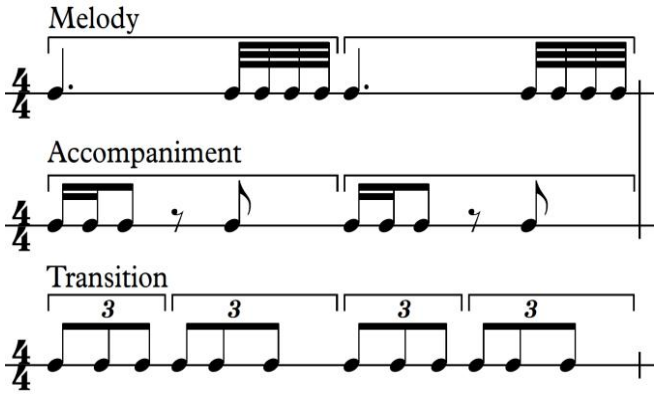
[93] Justin London, "Rhythm in twentieth-century theory," in *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (Cambridge University Press, 2002), 707.
[94] London, "Rhythm in twentieth-century theory," 707.

Example 4.3: Rhythmic figures in *Dragon Warrior*'s "Fight" theme.[95]



Building motives on short rhythmic cells in this manner is a common trope found in battle themes. Other games, such as *Final Fantasy,* also built battle themes upon short rhythmic motives. Speficially, Nobuo Uematsu used rhythmic ideas to define form. For a third generation NES game, *Final Fantasy*'s "Battle Scene" is quite advanced in its form, as it contains multiple musical sections with short transitions, each defined by how the different rhythms interact with each other. Table 4.1 contains information about each section and how it relates to the overall form.

Table 4.1: Form of "Battle Scene" from *Final Fantasy*

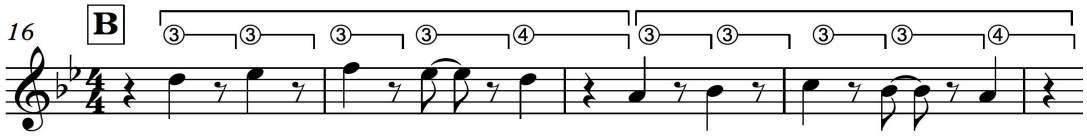
Section	**Length**	**Melody**	**Accompaniment**	**Bass**
Introduction	Anacrusis + 2 full measures	Diminished 7th arpeggio	Diminished 7th arpeggio	Eighth-note vamp
Theme 1 (A)	8 measures	Octatonic scale	Mostly 5ths, Dorian mode	Steady 8ths, octaves with flattened seventh
Transition 1	4 measures	Syncopated hits	Implying VI and V	Arpeggios and harmonic minor runs
Theme 2 (B)	8 measures	Battle rhythm	Arpeggios	Driving bass line
Transition 2	2 measures	Scalar passage	Arpeggios	Root notes
Transition 2a	4 measures	Hits, scalar run	Hits	Hits

[95] Both rhythmic cells in the main theme (which sound simultaneously) are two beats long, while the transition section is made up of a one-beat triplet pattern.

Consistent with Yeston's argument that meter is determined by how rhythms interact with the middle ground, this theme has a composite rhythm of steady eighth-notes throughout most of the piece, to which the other layers respond. The rhythmic variation of "Battle Scene" is not created by multiple lines simultaneously changing their activity, but rather through shifting accent patterns.

One example is the syncopated pattern in the B section (Example 4.4), which is defined by a series of four groups of three units and one group of four units, which is rhythmically opposed to the other simultaneous voices.[96] Similar syncopated rhythms are found in countless battle themes among many games. For example, *Zelda II: The Adventure of Link* uses a variation of it in all three of its battle themes, and the SNES games *Secret of Mana*, *Arcana,* and *Chrono Trigger* rely on similar syncopation in their bass lines, perhaps as an homage to this early example.

Example 4.4: "Battle Scene" Melody in the B Section

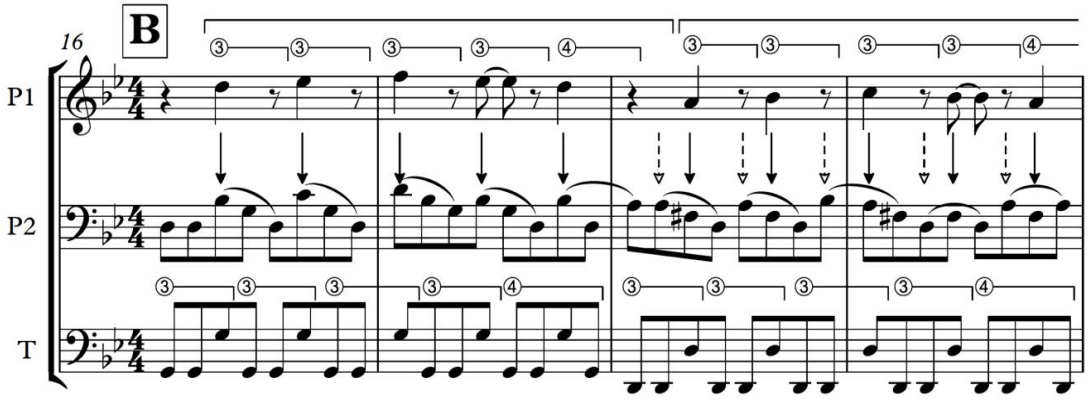


Though this phrase contains two instances of the same two-measure rhythmic figure, the accompaniment provides contrast. It consists of a cell of three eighth notes, with its highest notes matching the hits of the melody in the first two measures, followed by a new pattern, where the groups are all shifted one eighth note forward. This new macrorhythm further delays the arrival of a rhythmic cadence on beat one. In the example below (Example 4.5), slurs are marked to show phrases in the accompaniment, with arrows indicating how the melody interacts with the other two parts. The solid arrows mark the timepoints where the melody coincides with the highest pitches of the bass line, and the dashed arrows represent the beginnings of the

[96] In this case, the eighth note is the unit. Sometimes these proportions shift, making the sixteenth or quarter note one rhythmic unit.

three-note patterns in the accompaniment. The melody and bass line follow the same rhythmic pattern, shifted by a beat, while the accompaniment is made up of groups of three eighth notes, causing another level of phasing.

Example 4.5: Rhythmic dissonance in the B section



In early RPGs, dissonance and increased rhythmic activity in battle themes was enough to create tension and set the pace for the actions the player needs to perform to win the battle. However, as the genre evolved, games became larger, and battles with various tiers of intensity developed. With more complicated plots, these significant battles convey to the player that they have reached a certain important point in their quest. As the role of these significant battles became more refined, new battle themes were added to demonstrate their importance as gaming events.

Using New Music for Significant Battles

Despite battle music being drastically different from the rest of a game's music, using one theme throughout an adventure that may take forty hours or longer to complete can become overly repetitive. Thus, game designers began to use new themes that communicate the importance of significant battles. According to composer Scott B. Morton, the use of different battle theme music indicates that the "final boss battle [is] more important than the miniboss battle." That way, a "player

can subconsciously interpret the importance level of events based on the music that accompanies them."[97]

Having a specific final battle theme serves multiple purposes in video games. Before stand-alone game soundtracks were released and playthroughs were freely published to sites such as YouTube, the only way one could listen to this piece of music was to successfully complete the rest of the game and encounter the final boss. This encounter, and the ending sequence in general, served as a reward for the player's accomplishment. The music composed for this conclusion had a special significance, as only the most skilled players could experience it.

As previously stated, *Final Fantasy* uses the same battle theme throughout the entire game, disregarding this important element of a reward-based game design. Other games in a similar genre released around the same time as *Final Fantasy,* such as *Zelda II* and *Faxanadu,* did in fact include new themes for boss battles, so it is curious as to why this game lacks them. According to Karen Collins, "[m]ood induction and physiological responses are typically experienced most obviously when the player's character is at significant risk of peril, as in the chaotic and fast boss music."[98] Without a unique boss battle theme, it may be unclear to the player that this is indeed the final battle. Since music helps communicate the story, failing to indicate the significance of a final battle through a change in music could be confusing to some players.

Since battles vary in difficulty, the player's emotional reaction varies accordingly. When a battle begins in a turn-based RPG, the battle theme begins to play, however the enemies the player encounters are usually a mystery when this battle occurs as a random, rather than forced, encounter. Thus, the music does not provide a clue to the

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[97] Quoted in Collins, *Game Sound*, 92.
[98] Collins, *Game Sound*, 133.

player as to the difficulty level of the battle. If the player has heard the same theme throughout a game that takes dozens of hours to complete, they could begin to associate it with easier, earlier gaming events, and the music no longer has the same emotional value and thus loses its meaning.

Iain Hart addresses this in his article, *Meaningful Play: Performativity, Interactivity and Semiotics in Video Game Music.* He describes a similar situation from a game from 2006, *The Elder Scrolls IV: Oblivion*, where the game's battle music selection algorithm attempts to add variety to minor battle themes by randomly selecting one. However, this obscures the correlation between music and battle difficulty as a player could conceivably encounter a weak or strong enemy accompanied by the same music. Since each battle theme can be associated with multiple levels of danger, the music does not necessarily indicate the true level of danger.[99] However, most RPGs approach this problem by assigning unique themes to unique situations based on battle difficulty.

As previously stated, the tension of a significant, epic battle is heightened when a unique musical theme accompanies it. This approach is likely influenced by the role of music in action games from the *Mega Man* and *Castlevania* series, or action-RPGs like *Crystalis* or *Faxanadu*, which are NES games that make use of a new theme when encountering an end-of-level boss. The music for these boss battles tends to be simpler, but in a minor key with dissonant sonorities, and according Karen Collins, "ha[s] much shorter loops…[adding] to the tension."[100]

RPG boss music shares some traits with action game music. The music is more dissonant than minor battles, but unlike in action games, the tension is not increased through simplicity and repetition. Instead, RPG boss encounter themes are usually

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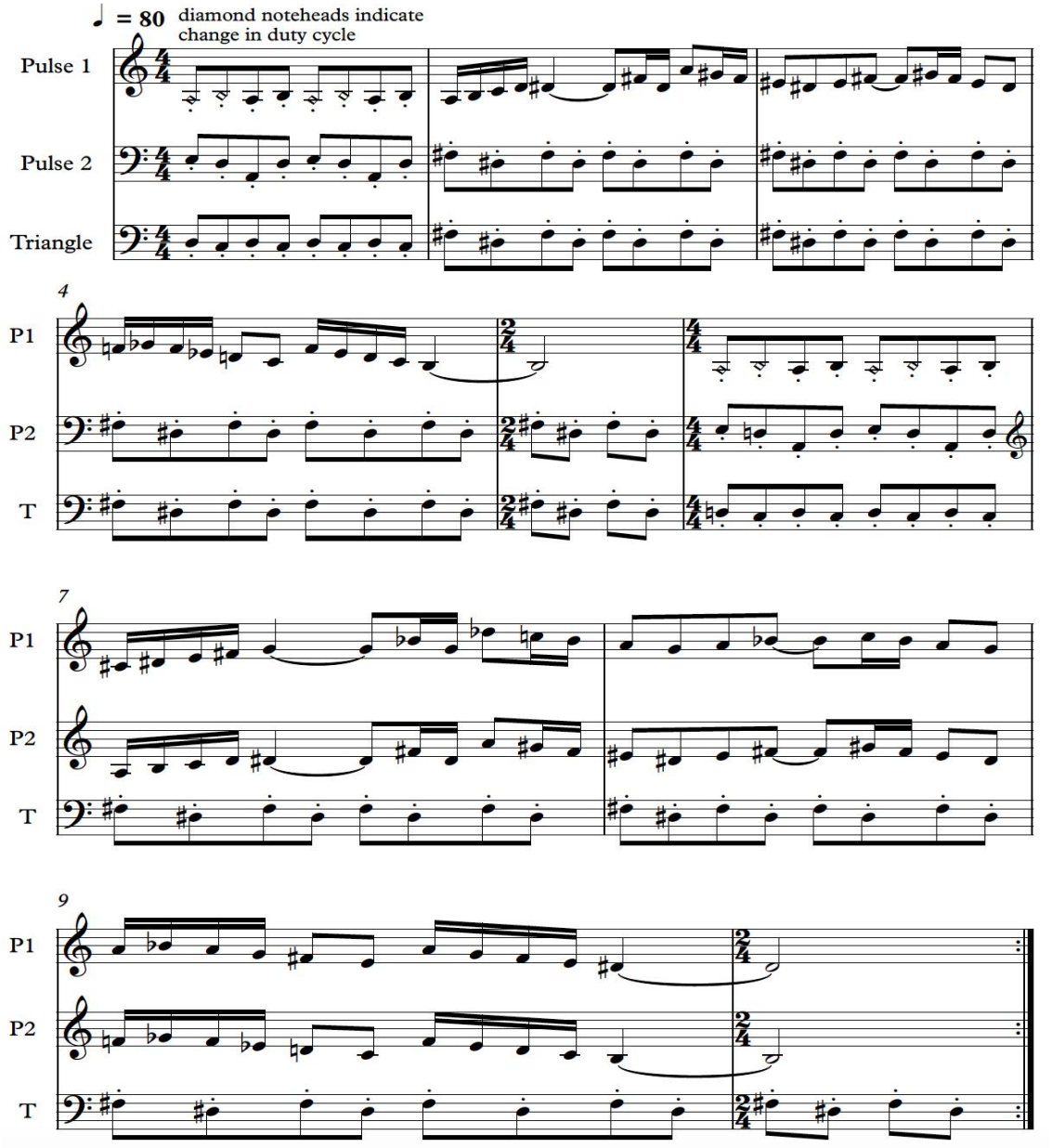
[99] Iain Hart, "Meaningful Play: Performativity, Interactivity and Semiotics in Video Game Music," *Musicology Australia*, 38 no. 2, (November 2014): 288-289.
[100] Collins, *Game Sound*, 28.

longer and more complex than the game's respective generic battle theme, and the tension is increased through a more highly syncopated and dense musical texture.

Dragon Warrior's boss battle theme, "King Dragon," represents an early example of RPG boss battle music. This theme is used only once in the entire game for the climactic final battle against the Dragonlord. Unlike the rest of the soundtrack, this piece uses three sound channels (Example 4.6). In addition to allowing for three simultaneous pitches, the addition of this extra channel provides a contrast in color and texture not found in other pieces in the game's soundtrack. It is first apparent at the beginning of the battle, where the duty cycle of the first channel alternates between a 25% pulse and a square wave. This, coupled with dissonant harmonies and a melody based on the octatonic scale, evokes a new sense of tension along with providing a new—albeit slight—change in timbre.

Example 4.6: “King Dragon” by Koichi Sugiyama



Like “Fight,” “King Dragon” ignores functional harmony, this time through the use of an octatonic scale. Being a scale that lacks a leading tone, it avoids tonic-dominant relationships, thus avoiding the need to resolve. The significance of this is two-fold: the suggested harmony outlines the diminished seventh chord, whose symmetry can confuse tonal centers, and the intervallic pattern in the scale is symmetrical as well, thus never leading to one clear tonic pitch. Just like the examples in *Final Fantasy*’s “Battle Scene,” the very nature of this scale’s construction runs

contrary to the common expectation that tension will lead to release. In the second half of "King Dragon," two octatonic scales run in parallel major thirds, forming a 12-tone aggregate and further destroying any semblance of a tonal center.

Rhythmically, the piece feels grounded because of an eighth-note ostinato in the bass line. Like the aforementioned examples, a steady, consistent rhythm is a strong feature of battle music, and the boss battles are no exception. In addition, the melody, defined by the material in the first pulse wave (channel 1 on the NES) from measures 2 to 5, contains a rhythmic pattern that is varied in every measure. It begins and ends on pattern of rising and falling sixteenth notes respectively, and it contains some syncopation by avoiding an accent on beat three of measures 2 and 3. These rhythmic gestures help provide contrast to the stagnant ostinato.

"King Dragon,"approaches repetition and dissonant scales in a slightly different manner than the "Fight" theme. Instead of a four-beat syncopated pattern, it features relentless oscillating thirds in a consistent eighth-note motion. This specific use of repetition supports Collins's argument that boss battles tend to favor repetition and shorter musical motives to build tension. In addition, the fact that this theme is reserved for the very end of the game produces a sense of surprise and novelty that adds to its intensity.

Applying Tiers of Intensity to Support a Narrative

The idea of using a separate boss battle theme in early turn-based games such as *Dragon Warrior* set a precedent for future RPGs. As technical capabilities increased in the next generation of consoles, games began to apply various tiers of intensity to different types of battle themes. This approach, as evidenced in two of the *Final Fantasy* games released for the SNES are prime examples of how these themes appear in turn-based RPGs.

Final Fantasy IV (FFIV), despite originally being developed for the NES, takes full advantage of the SNES's increased memory and storage.[101] It features a larger and more complex world to explore and possesses additional pieces of original music, including several different battle themes. Expanding on ideas from the aforementioned games, there are several different battle themes throughout this game defined by degrees of intensity. In addition to the generic battle theme, minor boss battles (usually occurring at the end of a dungeon) share a theme. There is also another tier for more significant bosses, known as the "Four Fiends," as well as a another theme used for the final battle against Zeromus.

Since the game was released for a 16-bit system, improvements in technology also allowed for new, more sophisticated sounds using MIDI technology to trigger samples. Instrumental timbre, and the symbolism associated with them became a factor in composition, as described in Chapters 2 and 3.

Table 4.2 briefly summarizes the musical characteristics in the various ways battle themes are used in *FFIV*. It is worth noting that these five tiers of intensity increase in both harmonic dissonance and rhythmic complexity. Modes are also used to differentiate these battle themes. According to Vincent Persichetti's organization of modes from brightest to darkest, "Fight 1" is the brightest of the lot as it is based on Ionian and Lydian modes.[102] It also borrows elements from popular music with its heavy use of the subtonic triad when it eventually shifts to a minor key—as opposed to the diminished triad on the raised seventh—along with a rock drum beat and electric bass. "Fight 2," the first boss battle theme, also employs elements of rock music, but with increased dissonance and greater emphasis on the flattened fifth scale

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[101] Not all Japanese games enjoyed English translations and worldwide releases, so many games were renamed to avoid confusion, even though it ultimately caused more confusion.

[102] Order from brightest to darkest mode: Lydian, Ionian, Mixolydian, Dorian, Aeolian, Phrygian, Locrian . See Vincent Persichetti. *Twentieth-Century Harmony: Creative Aspects and Practice*. (New York, NY: W. W. Norton & Company, 1961).

degree. “Run!” is not only assigned to battles, but also any time-crucial event. Hearing this short loop in a battle sequence provides a sense of urgency, as the music is originally associated with a cutscene where time is of the essence. “The Dreadful Fight” is much more complex than the other battle themes, and its shifting meters and syncopation create more tension. “The Final Battle” wraps up the entire game save for the ending cinematic sequence. It features music in different styles, from sections based on the diminished scale (as seen in previous games like *Dragon Warrior*), to quotations from the game’s mixed-mode overworld music. Its triumphant second theme provides an air of heroism, while interruptions of syncopated diminished-fifth hits create contrast and tension.

Table 4.2: Musical Characteristics of the Battle Themes from *Final Fantasy IV*

Theme	**Function**	**Discerning Traits**
“Fight 1”	Minor battle	Rock beat, VI-VII-i progression, diminished 7th chords
“Fight 2”	Boss battle	Rock beat, more dissonance with many flatted $\hat{5}$s
“Run!”	Time-crucial event	Short loop of two slowly-moving tense arpeggios
“The Dreadful Fight”	Four Fiends (et al)	Syncopation with heightened chromaticism and diminished chords
“The Final Battle”	Zeromus	Diminished / majestic brass / overworld quotation

All of these compositional tropes come together in the quintessential representation of a boss battle during the fourth generation of consoles, “Dancing Mad” from *Final Fantasy VI*, which was released for the SNES in 1994.[103] “Dancing Mad” serves as a climax to one of the longest, most in-depth games of the time. Unlike other final battle themes, “Dancing Mad” consists of five sections, with the music changing as the player’s party completes an ascending multi-staged final battle,

[103] Released as *Final Fantasy III* in North America.

eventually culminating in a fight against the game's antagonist, Kefka Palazzo (Table 4.3). The music attempts to portray elements of Kefka's character, who is described in Nintendo Power magazine as "an insane, remorseless clown with godlike powers."[104]

Table 4.3: "Dancing Mad," the Final Battle Theme from *Final Fantasy VI*, Composed in Five Sections

Section	**Battle Tier**	**Discerning Traits**
1	Portentous opening	Tolling bells, church organ and choir, intense second section provided by a harmonic pedal and ostinato
2	New enemies	Circus tropes, shouts on the up-beats, stagnant harmony
3	New enemies	Organ toccata, (loops back to section 2 if necessary)
4	Kefka descends	Organ build-up similar to *Also Sprach Zarathustra*
5	Height of battle with Kefka	Progressive rock (organ, guitar, bass, drums) / calming contrasting section

Each section contains changes in texture, emotion, and style, incorporating a wide variety of musical features from the Baroque era to progressive rock.[105] This stark contrast in genre and style is especially effective as a piece of music that accompanies the intensity and significance of the battle. Much of this is due to the use of specific instrumentation and a musical style that is unique to this ending game sequence.

"Dancing Mad's" portentous introduction features a tolling bell coupled with a low organ pedal over a simple synth ostinato focused on scale degrees $\hat{1}$ and $\hat{5}$ in the key of C minor. The use of bells, organ, and choir reference sacred music, or at least their depictions in popular culture. This, coupled with the abundance of harmonic minor and Neapolitan chords (D♭ major over a C pedal), gives an eerie presence usually associated with death and the macabre. This first part of this section serves as an introduction, and the only hint of it being a battle theme is the use of sporadic

[104] "250 Reasons to Love Nintendo," *Nintendo Powe*r, December, 2009, 42.
[105] SPC files acquired from Zophar's Music Domain. https://www.zophar.net/music/nintendo-snes-spc

timpani and the rhythmic synth. The second part of this first section sounds more like battle music. An aggressive drum set enters to provide some minimalistic momentum underneath a choir motive reminiscent of Carl Orff's *Carmina Burana*, while the player's party battles an anonymous monster whose sprite is larger than most throughout the game.

The second section begins when the player has ascended to the next phase of the battle, featuring previously un-encountered humanoid enemy characters. This section, which is in a key one half-step higher than the first, increases in rhythmic activity and the instrumental sounds evolve to be more disturbing. The solemn sound of the church organ is replaced by a quirky, carnival-esque organ. Instead of a chorale-like texture, the choir's vocalizations are transformed into syncopated shouts.

These circus-like sounds reference the clown-like appearance that Kefka possesses up until this point. Though he is not yet on screen, this trope indicates to the player that he is coming. However, the second part of this section provides another stark contrast; the church organ returns, this time with gestures that resemble a Baroque toccata.

This change in compositional style seems to refer to Bach's *Toccata and Fugue in D minor*, which is commonly used in video games and films to depict something godly or supernatural. One specific application of this piece is during a scene in the 1988 game, *The Battle of Olympus*. This game is discussed by William Gibbons, who states that,"[t]he perceived perfection and 'pure' music of the Bach fugue translates into the gods' own perfection…" and the use of this composition gives the characters on screen a "godlike" presence.[106] This Baroque piece is usually associated with evil and the supernatural due to its extensive use in film and other multimedia related to

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[106] William, Gibbons. "Blip, Bloop, Bach? Some Uses of Classical Music on the Nintendo Entertainment System." *Music and the Moving Image* Vol. 2, No. 1 (Spring 2009): 7.

horror and the macabre.[107] Throughout the game, Kefka carries himself as a deity, whose ultimate goal is to control the world. This music, associated with perfection and godlike status, references how his personality grows from a tragic clown to the power-crazy despot that he becomes halfway through the game.

The third section features solo organ in an attempt to mimic Baroque church music. Here, symbols that point to Kefka's clown facade are dropped and instead the music takes the "diety" concept further. The player's enemy is now a set of two characters sitting atop of a tree. Along with bells and Baroque organ music, the major key provides a fresh surprise, though is foreshadowing the eventual evil battle. No longer pointing to Kefka's evilness, the change in key shifts the focus away from the macabre character depicted earlier. Though the major key may seem out of place in battle music, this provides contrast and also a sense of irony. It also adds to the overall tension, since it is obvious to the player that they still are awaiting the arrival of the final boss. However, the final musical phrase of this section consists of a series of diminished seventh chords, which remind the player that this is still a battle.

The fourth section is a short transitional piece that does not loop, and is used as Kefka descends from above following the defeat of his anonymous minions. Undoubtedly inspired by the opening of Richard Strauss's *Also Sprach Zarathustra*, it features only a foreboding organ made up of a layering of perfect fourths followed by a pair of chords "sung" by a synthesized choir that descends a minor second. According to Richard Anatone, the abandonment of all instruments that were previously featured in the piece, save for organ and choir, is for religious purposes, but the use of dissonant fourths (as opposed to consonant fifths) depicts the evilness

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[107] One of its earliest uses was in the opening scenes of the 1932 film *Dr. Jekyll and Mr. Hyde,* but it has also been used as the sole music for the 1986 horror-themed video game, *Dark Castle*, and as recently as a 2011 Halloween episode of *The Office*.

of Kefka.[108] To further enhance the good vs. evil dichotomy, his two-chord gesture accompanies the appearance of Kefka's new sprite, which is adorned with angel wings. At this moment, Kefka's previously amorphous, pixelated character is replaced with a higher-resolution image that appears to be floating over a bright, heavenly background.

The final section serves as yet another surprise and reward for making it this far. It represents a further departure in musical style, this time featuring elements of progressive rock music. These include a change in the instrumentation from more "classical" instruments to rock instruments, angular organ lines, and shifting metrical pulses. Here, the organ is no longer used as a symbol of sacred or carnival music, but is instead as one used in a progressive rock band. The music's use of quartal intervals and syncopated accent patterns references the style of progressive rock songs from the 1970s. The music now has more in common with the epic songs *Tarkus* (Emerson, Lake & Palmer) and *Heart of the Sunrise* (Yes), rather than the classical canon.

Though "Dancing Mad" features many contrasting styles, it musically depicts the deterioration of Kefka's sanity throughout the game. His leitmotif is accompanied by his infamous, low-fi sampled laugh, which, according to William Cheng, "...is a crystalline example of how noises in video games take on significance via creative deployment," since this sound effect has always been associated with this character.[109] This laugh interrupts the music, reminding the player of the clown-like first impression of this character, rather than the current godlike incarnation.

Surprisingly, before looping back to the beginning, this movement segues into a dreary, yet calming, contrasting section. Reminiscent of a 1980s power ballad with its

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[108] Anatone, Richard. "Thus Spake Uematsu: Satirical Parody & Structural Unity in the Opening Sequence of Final Fantasy VI." Paper presented at the North American Conference on Video Game Music, University of Hartford, Hartford, CT, March 30, 2019.
[109] William Cheng, *Sound Play,* 57.

slow drum pattern, it originally feels out of place, but seamlessly transitions to the beginning while the battle rages on. This provides contrast to the aggression created by the relentless rock beat, odd meters, and electric bass riff.

Conclusion

By the late 1980s, a relatively standard approach to battle theme music had become codified, featuring dense, dissonant, and syncopated musical ideas that reference popular music. This approach provides the necessary contrast with the other styles of music assigned to other areas of the RPG. Additionally, when RPGs use battle themes with varying intensities, music teaches the player about the game, communicating the significance of the battle.

Since the fifth generation—which includes consoles like the Nintendo 64 and the Playstation—games were able to use digital audio files for actual recorded audio, providing a clearer representation of the sounds that these early composers were attempting to model. In addition, many modern games tend to rely on new ways to implement battle music. Instead of the quick transition to a new sound file, sometimes the musical layers are slowly added, allowing the tension to increase as enemies approach.

Chapter 5: Conclusion

Immersion and World Building

RPGs seek to immerse the player into an imaginary world, and music plays an important role in this process. Gaming events determine the music's function: overworld themes evoke a sense of place, town melodies establish identity, and battle music demonstrates the intensity of the battle to maintain player engagement. The music for each one of these gaming events contains specific harmonic, melodic, or rhythmic gestures that contribute to its function. Overworld themes tend to be built on harmonies that drift far away from the tonic through non-closely related keys, producing a sense of exploration and wondering through sound. Often referencing the pastoral, town themes evoke identity of their inhabitants through musical references as well as specific instrumentation. Town themes can also indicate different political states or communicate the how the importance of these towns in context to the game's plot. Battles in turn-based RPGs represent a different type of gameplay from these other locations in the game. Appropriately, battle themes have driving, syncopated rhythms that provide energy to accompany this starkly different gameplay.

Future Research in Ludomusicology

Though the focus of this dissertation is on third- and fourth-generation RPGs from the 1980s and 90s, similar analytical methods can be applied to contemporary games. In general, these games continue to employ the overworld, town, and battle gameplay paradigms, and the music that accompanies these reflects the musical tropes discussed here. However, the definition of "overworld," "town," and "battle" have evolved over the years and the music has adapted accordingly. For example, composers have experimented by combining features of these different themes. *Kingdom Hearts* (released in 2002 for the Playstation 2) uses multiple battle themes

that vary in style and instrumentation to match the game's environment, evoking a sense of place similar to the traditional role of the overworld theme.

Composers of contemporary games also face new challenges and possibilities in the way the music is implemented. Game design has evolved in a way that enables a greater focus on adaptive and interactive sound design. Transitions between musical cues have changed the most drastically. Instead of being connected with quick crossfades (or even abrupt transitions), separate cues are now composed in such a way that allows them to blend into each other over a longer period of time, with the transition times and methods being influenced by gameplay.

Much of today's game music uses multiple musical layers per composition, which allows for a new, more adaptable sonic experience. Instead of replacing the current music altogether, this adaptive approach seamlessly blends in new instruments, or replaces one musical layer with another. For example, additional layers of music can be dynamically added when an enemy approaches the player's character. Musical features of battle themes can start to blend into the overworld theme until the threat level increases to a point where the overworld theme is completely replaced by the battle theme. Additional research and analysis in this area would be beneficial to the field, including case studies on how dynamic layering affects immersion, but also how composers arrange their musical layers both in terms of musical material and technical execution. In Isabella van Elferen's article, "Analyzing Game Musical Immersion," she creates a model of how affect, literacy, and interaction combine to create immersion.[110] Also, Elizabeth Medina-Gray discuss the rules for how layers are triggered in her article, "Modularity in Video Game Music."[111] Uncovering

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[110] Isabella van Elferen, "Analyzing Game Musical Immersion," *Ludomusicology: Approaches to Video Game Music*, (2016): 32-50.
[111] Elizabeth Medina-Gray, "Modularity in Video Game Music," *Ludomusicology: Approaches to Video Game Music*, (2016): 53-66.

successful ways to compose music in this way will encourage discussion in music theory and composition. Specifically, there can be studies on how similar musical gestures can exist in both overworld and battle music.

Overworld themes continue to act as a way to brand games in the *Final Fantasy* and *Zelda* series, but the definition of "overworld" has expanded since respective games in these series have become more "open-world." The player in an open-world game has significantly more options of which path to take to the conclusion of the game, while a "linear" game requires the player to follow a specific order of events with few opportunities to venture away from what the game designers intended.

Because of this, the way music is used to provide a sense of place has also been refined. Instead of music abruptly switching to a new theme upon entering a new area, hints and motives of the new theme can slowly be introduced as the next area enters their view. For instance, a player in a barren overworld location may see a tree in the distance, and as they approach it, the music will begin to incorporate "forestial" musical ideas. Composing music in this fashion requires a new set of skills, as the composer usually is required to program the audio engine to sync up multiple sound files simultaneously and must indicate what parameters cause these sound files to begin and end. This requires composers to be able to create music that maintains its interest while layers are added and removed.

Two areas of future research would be particularly interesting: 1) the function of overworld themes in contemporary games and how music composition has acclimated to these adaptive possibilities and 2) how a similar sense of place is perceived in other, non-overworld, areas of RPGs.

Nintendo's latest release in The Legend of Zelda series, *Breath of the Wild* (2017) presents an example of how one can create a fusion of musical function. *Breath of the*

Wild is inventive in the way it blends overworld, town, and battle themes. With a vast, open landscape that requires hours of exploring and—save for the very beginning—no intended order of events, constant music could distract the player, and quickly lose its meaning. Therefore, there is an almost complete lack of music in most areas of the overworld. Instead, sparse minimalistic piano gestures appear seemingly at random as the player controls Link through fields, lakes, and mountains. However, recognizable melodies eventually become evident while traveling as a way to communicate that Link is approaching a town or an impending battle.

In this way, *Breath of the Wild* uses music to seamlessly tie the overworld and towns locations together. As in the aforementioned *Final Fantasy* games, each major town has a theme that builds the identity of its inhabitants—Zora's Domain, Goron City, Rito Village, and Gerudo Town. There is also an additional location the player discovers after completing a series of quests called Tarrey Town, which is a melting pot of inhabitants from these other towns. Its music is appropriate to this culturally-mixed place, as it contains features of each town's musical themes, and adds these elements as each resident arrives in town. Future research should be conducted to analyze the tropes associated with each of these towns and how they work at developing identity, but also how they are used together in Tarrey Town. In addition, there are both day and night versions of each theme, but the general musical character is maintained, despite the day themes being faster, with more rhythmic activity than their nighttime counterparts. An analysis of this music can be derived both from approaching the music as "overworld" or "town" music, as these themes refer to both geographical and identity-related features.

Sending messages to the player about the political status of the town is also common in contemporary MMORPGs (Massively Multiplayer Online Role-Playing

Games), where the players play and interact with each other online, such as *World of Warcraft* (PC, 2004). However, unlike the examples discussed in *Final Fantasy VI*, the reaction of these is dependent on the player's own affiliation. Specifically, if the player chooses to play as an Alliance character, musical themes associated with the Horde faction will be not friendly, but rather threatening, and vice-versa. In addition, *World of Warcraft* uses a more advanced game design engine that seamlessly blends musical themes together. This use of adaptive music is important in games of this genre, as the player will know the approaching town is dangerous due to the slowly changing music, and can escape before it is too late. An advanced music engine, especially one that triggers musical cues based on threat level, aids the player in successfully navigating the game.

Additional elements of battle music in non-turn-based RPGs deserve further study. As discussed in Chapter 4, turn-based RPGs have experimented with how battle themes work since the *Final Fantasy* games for the SNES, which use multiple themes at varying intensities to communicate the importance of these battles. Since turn-based battles are cutscenes with little musical interactivity (because the player does not move their characters), the development in sophistication of battle themes applies more to action-RPGs.

However, composers did continue to experiment with battle music in turn-based games. An example of how "inappropriate" battle music can tell the story is found in *Final Fantasy VII* (released for the Playstation in 1997). At the end of the first part of the game, a significant character dies and the event is followed by a boss battle. Instead of the expected epic and aggressive theme that the player is used to hearing, the game instead plays the deceased character's slow, mellow, and major leitmotif. This shifts the player's attention to what just transpired, rather than focusing on the

obvious battle.

A more recent example of sophisticated battle music occurs in *Kingdom Hearts*. Since it is an action RPG and battles occur in the overworld or towns, the change in music is a main indicator on whether or not your characters are indeed in battle. With no "victory fanfare," which is common in all turn-based RPGs, the only way the player knows all the enemies have been defeated is the fade out of the battle theme, which succumbs to the previously-heard music. In addition, *Kingdom Hearts'* use of battle music is unique because each section of the game has its own battle theme whose style matches the location. Since the music matches the aesthetics of the zone, it serves a similar world-building function as an overworld or town would.

Conclusion

With a large number of new titles—both high-budget and indie—being released on a seemingly daily basis, the number of games that could be studied is nearly limitless. Despite the large number of games available, as well as innovations in approach described above, it is difficult to find RPGs whose music is not inspired by the world-building tropes developed by these classic third- and fourth-generation games.

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